

# Section 2

CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM

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Inactive Agency Risk Pool  
as of June 30, 2010



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## Actuarial Certification

To the best of our knowledge, this report is complete and accurate and contains sufficient information to disclose, fully and fairly, the funded condition of the Inactive Agency Risk Pool. This valuation is based on the member and financial data as of June 30, 2010 provided by the various CalPERS databases and the benefits under this Risk Pool with CalPERS as of the date this report was produced. It is our opinion that the valuation has been performed in accordance with generally accepted actuarial principles, in accordance with standards of practice prescribed by the Actuarial Standards Board, and that the assumptions and methods are internally consistent and reasonable for this risk pool, as prescribed by the CalPERS Board of Administration according to provisions set forth in the California Public Employees' Retirement Law.

The undersigned is an actuary for CalPERS. She is a member of the American Academy of Actuaries and Society of Actuaries and meets the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.



SHELLY CHU, ASA, MAAA  
Associate Pension Actuary, CalPERS  
Pool Actuary



## HIGHLIGHTS AND EXECUTIVE SUMMARY

- PURPOSE OF SECTION 2
- RISK POOL'S REQUIRED EMPLOYER CONTRIBUTION
- FUNDED STATUS OF THE RISK POOL
- CHANGES SINCE THE PRIOR VALUATION
- SUBSEQUENT EVENTS





## Purpose of Section 2

This Actuarial Valuation for the Inactive Agency Risk Pool of the California Public Employee's Retirement System (CalPERS) was performed by CalPERS' staff actuaries using data as of June 30, 2010 in order to:

- set forth the actuarial assets and accrued liabilities of this risk pool as of June 30, 2010
- establish the actuarially required contribution amount of the pool for the period July 1, 2012 through June 30, 2013
- provide actuarial information as of June 30, 2010 to the CalPERS Board and other interested parties

The use of this report for any other purposes may be inappropriate. In particular, this report does not contain information applicable to termination or alternative benefit costs. The employer should contact their actuary before disseminating any portion of this report for any reason that is not explicitly described above.

## Risk Pool's Required Employer Contribution

(figures net of employee contributions)

	<b>Fiscal Year 2011/2012</b>	<b>Fiscal Year 2012/2013</b>
<b>Contribution in Projected Dollars</b>		
1. Pool's Gross Employer Normal Cost	\$ 0	\$ 0
2. Payment on Pool's Amortization Base	2,875,012	3,205,700
3. Payment on Employer Side Funds	<u>5,737,181</u>	<u>5,049,035</u>
4. Total Required Employer Contribution*	\$ 8,612,193	\$ 8,254,735
* Total may not add up due to rounding		

These amounts are the total required employer contributions by the pool for fiscal years 2011/2012 and 2012/2013. The payment on the pool's amortization base is the payment on the ongoing cumulative gains and losses experienced by the pool since its June 30, 2003 inception. The payment on employer side funds is the combination of all expected individual amortization payments on every side fund in the pool.

## Funded Status of the Risk Pool

	<b>June 30, 2009</b>	<b>June 30, 2010</b>
1. Entry Age Normal Accrued Liability	\$ 480,513,699	\$ 509,198,137
2. Market Value of Assets Including Side Funds (MVA)	\$ 325,117,941	\$ 364,063,750
3. Funded Ratio (MVA) [(2) / (1)]	67.7%	71.5%

## Changes since the Prior Valuation

### Actuarial Assumptions

There were no changes made to the actuarial assumptions since the prior year's actuarial valuation. The only exception would be changes necessary to reflect a benefit amendment.

### Actuarial Methods

In June 2009, the CalPERS Board adopted changes to the asset smoothing method in order to phase in over a three year period the impact of the -24% investment loss experienced by CalPERS in fiscal year 2008-2009. The following changes were adopted:

- Increase the corridor limits for the actuarial value of assets from 80%-120% of market value to 60%-140% of market value on June 30, 2009
- Reduce the corridor limits for the actuarial value of assets to 70%-130% of market value on June 30, 2010
- Return to the 80%-120% of market value corridor limits for the actuarial value of assets on June 30, 2011 and thereafter
- Isolate and amortize all gains and losses during fiscal year 2008-2009, 2009-2010 and 2010-2011 over fixed and declining 30 year periods (as opposed to the current rolling 30 year amortization)

### Benefits

The standard actuarial practice at CalPERS is to recognize mandated legislative benefit changes in the first annual valuation whose valuation date follows the effective date of the legislation. Voluntary benefit changes by employers within the risk pool are generally included in the first valuation whose report is dated after the amendment becomes effective. These voluntary changes are included in the liabilities reported in this valuation.

The valuation generally reflects plan changes by amendments effective prior to August 1, 2011. Please refer to Appendix B for a summary of the plan provisions used in this valuation report. The provisions in Appendix B do not indicate the class of benefits voluntarily contracted for by individual employers within the risk pool. Refer to Section 1 of the valuation report for a list of your specific contracted benefits. The increase in the pool's unfunded liabilities due to Class 1 or 2 amendments by individual employers within the pool is embedded in the Liability (Gain) / Loss shown in the Gain / Loss section of this report. This amount, however, is offset by additional contributions through a surcharge for employers who voluntarily contract for those benefits.

### Subsequent Events

There were no significant subsequent events to report in this valuation.

## SUMMARY OF LIABILITIES AND AMOUNTS

- DEVELOPMENT OF ACCRUED AND UNFUNDED LIABILITIES
- (GAIN)/LOSS ANALYSIS 06/30/09 - 06/30/10
- SCHEDULE OF AMORTIZATION BASES FOR THE RISK POOL
- DEVELOPMENT OF RISK POOL'S ANNUAL REQUIRED BASE CONTRIBUTION
- FUNDING HISTORY



## SUMMARY OF LIABILITY AND AMOUNTS

### Development of Accrued and Unfunded Liabilities

	<b>June 30, 2009</b>	<b>June 30, 2010</b>
1. Present Value of Projected Benefits		
a) Active Members	\$ 0	\$ 0
b) Transferred Members	122,628,724	123,261,170
c) Separated Members	7,791,818	10,238,664
d) Members and Beneficiaries Receiving Payments	<u>350,093,157</u>	<u>375,698,303</u>
e) Total	\$ 480,513,699	\$ 509,198,137
2. Present Value of Future Employer Normal Costs	\$ 0	\$ 0
3. Present Value of Future Employee Contributions	\$ 0	\$ 0
4. Entry Age Normal Accrued Liability		
a) Active Members (1a - 2 - 3)	\$ 0	\$ 0
b) Transferred Members (1b)	122,628,724	123,261,170
c) Separated Members (1c)	7,791,818	10,238,664
d) Members and Beneficiaries Receiving Payments (1d)	<u>350,093,157</u>	<u>375,698,303</u>
e) Total	\$ 480,513,699	\$ 509,198,137
5. Actuarial Value of Assets (AVA)	\$ 442,936,897	\$ 466,195,860
6. Unfunded Accrued Liability (4e - 5)	37,576,802	43,002,277
7. Side Funds (AVA)	\$ (8,892,869)	\$ (9,024,065)
8. Actuarial Value of Assets excluding Side Funds (5 - 7)	451,829,766	475,219,925
9. Unfunded Liability excluding Side Funds (4e - 8)	28,683,933	33,978,212
10. Market Value of Assets (MVA)	\$ 325,117,941	\$ 364,063,750
11. Funded Ratio (MVA) (10 / 4e)	67.7%	71.5%

## SUMMARY OF LIABILITY AND AMOUNTS

### (Gain)/Loss Analysis 06/30/09 - 06/30/10

We introduced the concepts of Actuarial Gains and Losses in the Cost and Volatility Section of this report. To reiterate, when we calculate the cost requirements of your plan, we use assumptions about future events that affect the amount and timing of benefits to be paid and assets to be accumulated. Each year actual experience is contrasted against the expected experience based on the actuarial assumptions. The differences are reflected below as your pool's actuarial gains or losses.

#### 1. Total (Gain)/Loss

a) Unfunded Liability/(Surplus) as of June 30, 2009	\$	28,683,933
b) Expected payment on the unfunded liability		(336,905)
c) Interest accumulation $[(.0775 \times (1a) - ((1.0775)^{.5} - 1) \times (1b)]$		<u>2,210,194</u>
d) Expected Unfunded Liability before other changes $[(1a) - (1b) + (1c)]$		30,557,222
e) Change due to assumption changes		0
f) Expected Unfunded Liability after changes $[(1d) + (1e)]$		30,557,222
g) Actual Unfunded Liability/(Surplus) as of June 30, 2010		<u>33,978,212</u>
h) Total (Gain)/Loss $[(1g) - (1f)]$	\$	3,420,990

#### 2. Asset (Gain)/Loss

a) Actuarial Value of Assets June 30, 2009	\$	442,639,632
b) Contributions received		1,626,443
c) Benefits and refunds and lump sums paid		(29,284,701)
d) Other transfers, miscellaneous adjustments		5,242,811
e) Expected interest		33,452,180
f) Transfers into the pool (AVA Basis)		20,723,035
g) Transfers out of the pool (AVA Basis)		<u>(1,476,073)</u>
h) Expected Assets as of June 30, 2010 [Sum (2a) through (2g)]		472,923,327
i) Receivables as of June 30, 2010		267,676
j) Expected Assets Including Receivables		473,191,003
k) Actual Actuarial Value of Assets as of June 30, 2010 Including Receivables		<u>466,195,860</u>
l) Asset (Gain)/Loss $[(2j) - (2k)]$	\$	6,995,143

#### 3. Liability (Gain)/Loss

a) Total (Gain)/Loss (1h)	\$	3,420,990
b) Asset (Gain)/Loss excluding side fund (2l)		<u>6,995,143</u>
c) Liability (Gain)/Loss $[(3a) - (3b)]^*$	\$	(3,574,153)

\* Includes (Gain)/Loss on plans transferring into and out of pool.

## SUMMARY OF LIABILITY AND AMOUNTS

### Schedule of Amortization Bases for the Risk Pool

The schedule below shows the development of the payment on the Pool's amortization bases used to determine the Total Required Employer Contributions. Each row of the schedule gives a brief description of a base (or portion of the Unfunded Actuarial Liability), the balance of the base on the valuation date, and the number of years remaining in the amortization period. In addition, we show the expected payments for the two years immediately following the valuation date, the balances on the dates a year and two years after the valuation date, and the scheduled payment for fiscal year 2012-2013. Please refer to Appendix A for an explanation of how amortization periods are determined.

Reason for Base	Amortization Period	Balance on June 30, 2010	Expected Payment 10-11	Balance June 30, 2011	Expected Payment 11-12	Balance June 30, 2012	Scheduled Payment for 2012-2013
FRESH START	27	\$3,994,487	\$336,905	\$3,954,343	\$336,905	\$3,911,088	\$336,905
(GAIN)/LOSS	30	\$1,577,563	\$131,826	\$1,562,985	\$130,608	\$1,548,542	\$129,401
ASSUMPTION CHANGE	19	\$11,499,661	\$0	\$12,390,885	\$1,193,275	\$12,112,527	\$1,193,275
SPECIAL (GAIN)/LOSS	29	\$13,485,511	\$0	\$14,530,638	\$1,214,224	\$14,396,365	\$1,214,224
SPECIAL (GAIN)/LOSS	30	<u>\$3,420,990</u>	<u>\$0</u>	<u>\$3,686,117</u>	<u>\$0</u>	<u>\$3,971,791</u>	<u>\$331,895</u>
<b>Total</b>		<b>\$33,978,212</b>	<b>\$468,731</b>	<b>\$36,124,968</b>	<b>\$2,875,012</b>	<b>\$35,940,313</b>	<b>\$3,205,700</b>

The special (gain)/loss bases were established using the temporary modification recognized in the 2009, 2010 and 2011 annual valuations. Unlike the gain/loss occurring in previous and subsequent years, the gain/loss recognized in the 2009, 2010, and 2011 annual valuations will be amortized over fixed and declining 30 year periods so that these annual gain/losses will be fully paid off in 30 years.

## Development of Risk Pool's Annual Required Base Contribution

	Fiscal Year 2011/2012	Fiscal Year 2012/2013
<b>1. Contribution in Projected Dollars</b>		
a) Total Normal Cost	\$ 0	\$ 0
b) Employee Contribution	0	0
c) Pool's Gross Employer Normal Cost (1a – 1b)	0	0
d) Total Surcharges for Class 1 Benefits	0	0
e) Net Employer Normal Cost (1c – 1d)	0	0
f) Payment on Pool's Amortization Base	\$ <u>2,875,012</u>	\$ <u>3,205,700</u>
g) Total Required Employer Contributions (1e + 1f)	2,875,012	3,205,700



## Funding History

Valuation Date	Accrued Liabilities (AL)	Market Value of Assets (MVA)	Funded Ratio (MVA/AL)
06/30/2006	\$389,558,550	\$396,102,990	101.7%
06/30/2007	\$391,672,319	\$443,419,466	113.2%
06/30/2008	\$399,268,718	\$404,318,470	101.3%
06/30/2009	\$480,513,699	\$325,117,941	67.7%
06/30/2010	\$509,198,137	\$364,063,750	71.5%

Valuation Date	Accrued Liabilities (AL)	Actuarial Value of Assets (AVA)	Unfunded Liabilities (UL)	Funded Ratio (AVA/AL)	Annual Covered Payroll	UL As a % of Payroll
06/30/2006	\$389,558,550	\$371,203,956	\$18,354,594	95.3%	\$0	0.0%
06/30/2007	\$391,672,319	\$377,230,242	\$14,442,077	96.3%	\$0	0.0%
06/30/2008	\$399,268,718	\$390,402,716	\$8,866,002	97.8%	\$0	0.0%
06/30/2009	\$480,513,699	\$442,936,897	\$37,576,802	92.2%	\$0	0.0%
06/30/2010	\$509,198,137	\$466,195,860	\$43,002,277	91.6%	\$0	0.0%

Information shown here is for compliance with GASB No. 27 for a cost-sharing multiple-employer defined benefit plan.



## SUMMARY OF ASSETS

- RECONCILIATION OF THE MARKET VALUE OF ASSETS
- DEVELOPMENT OF THE ACTUARIAL VALUE OF ASSETS
- ASSET ALLOCATION
- CALPERS 20-YEAR HISTORY OF INVESTMENT RETURNS



## Reconciliation of the Market Value of Assets

1. Market Value of Assets as of June 30, 2009	\$	325,117,941
2. Employer Contributions		1,245,321
3. Employee Contributions		381,122
4. Benefit Payments to Retirees and Beneficiaries		(29,134,946)
5. Refunds		(139,456)
6. Lump Sum Payments		(10,299)
7. Transfers and Miscellaneous Adjustments		5,242,811
8. Investment Return		<u>46,362,844</u>
9. Market Value of Assets as of June 30, 2010 (w/o Pool Transfers)	\$	348,768,073
10. Transfers into and out of the Risk Pool		15,028,001
11. Market Value of Assets as of June 30, 2010		363,796,074
12. Receivables for Service Buybacks as of June 30, 2010	\$	267,676
13. Market Value of Assets as of June 30, 2010 Including Receivables		364,063,750

## Development of the Actuarial Value of Assets

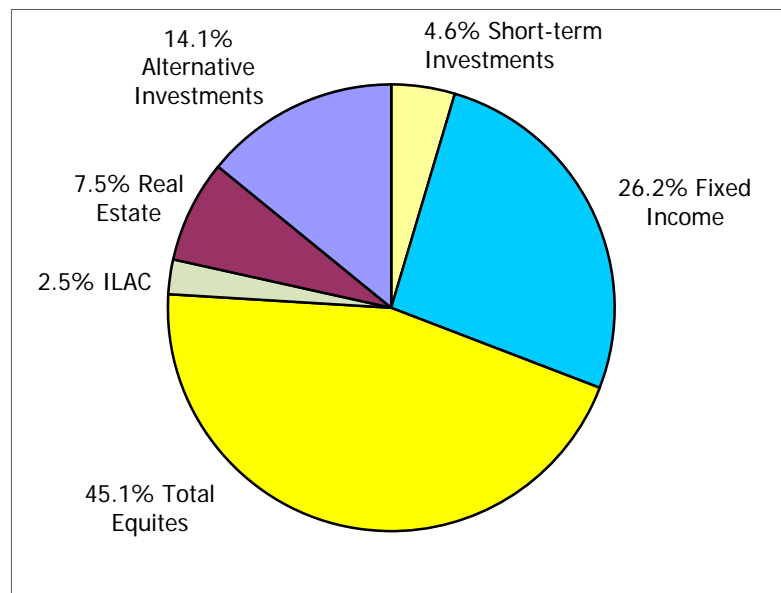
1. Actuarial Value of Assets as of June 30, 2009	\$	442,936,897
2. Employer Contributions		1,245,321
3. Employee Contributions		381,122
4. Benefit Payments to Retirees and Beneficiaries		(29,134,946)
5. Refunds		(139,456)
6. Lump Sum Payments		(10,299)
7. Transfers and Miscellaneous Adjustments		5,242,811
8. Expected Investment Income at 7.75%		<u>33,452,180</u>
9. Expected Actuarial Value of Assets (w/o Pool Transfers)	\$	453,676,365
10. Market Value of Assets June 30, 2010 (w/o Pool Transfers)	\$	348,768,073
11. Preliminary Actuarial Value of Assets (w/o Pool Transfers) $[(9) + ((10) - (9)) / 15]$		446,682,479
12. Preliminary Actuarial Value to Market Value Ratio		128.1%
13. Final Actuarial Value to Market Value Ratio (minimum 70%, maximum 130%)		128.1%
14. Market Value of Assets June 30, 2010		363,796,074
15. Final Actuarial Value of Assets $[(13) \times (14)]$		465,928,184
16. Receivables for Service Buybacks as of June 30, 2010		267,676
17. Actuarial Value of Assets as of June 30, 2010 Used for Rate Setting Purposes		466,195,860

## Asset Allocation

CalPERS follows a strategic asset allocation policy that identifies the percentage of funds to be invested in each asset class.

The asset allocation and market value of assets shown below reflect the values of the Public Employees Retirement Fund (PERF) in its entirety as of June 30, 2010. The assets for Inactive Agency Risk Pool are part of the Public Employees Retirement Fund (PERF) and are invested accordingly.

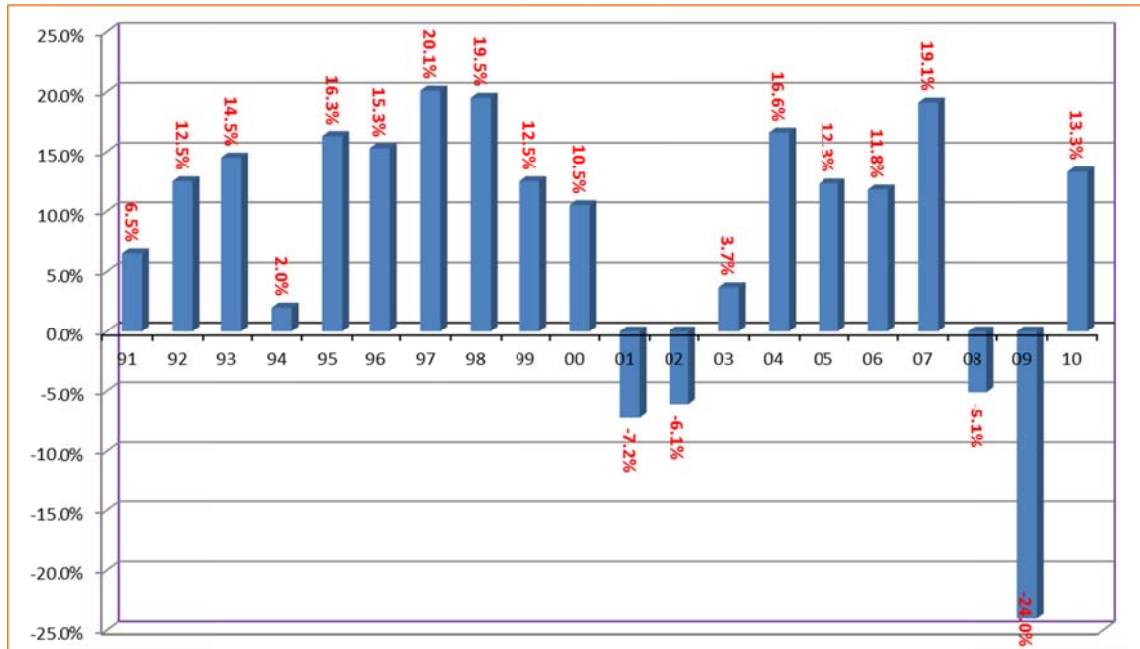
(A) Asset Class	(B) Market Value (\$ Billion)	(C) Current Allocation	(D) Current Target
1) Short-term Investments	9.3	4.6%	4.0%
2) Total Global Fixed Income	53.4	26.2%	16.0%
3) Total Equities	91.9	45.1%	49.0%
4) Inflation Linked (ILAC)	5.0	2.5%	4.0%
5) Total Real Estate	15.2	7.5%	13.0%
6) Alternative Investments	<u>28.7</u>	14.1%	14.0%
Total Fund	203.5 <sup>1</sup>	100.0%	100.0%



<sup>1</sup> Differences between investment values above and the values on the Summary of Investments on page 23 of the Comprehensive Annual Financial Report (Year Ended June 30, 2010) are due to differences in reporting methods. The Summary of Investments includes Net Investment Receivables/Payables.

## CalPERS 20-Year History of Investment Returns

The following is a chart with historical annual returns of the Public Employees Retirement Fund for each fiscal year ending on June 30. Beginning with June 30, 2002 the figures are reported as gross of fees.







# SUMMARY OF PARTICIPANT DATA

- SOURCE OF THE PARTICIPANT DATA
- DATA VALIDATION TESTS AND ADJUSTMENTS
- SUMMARY OF VALUATION DATA
- ACTIVE MEMBERS
- TRANSFERRED AND TERMINATED MEMBERS
- RETIRED MEMBERS AND BENEFICIARIES



## Source of the Participant Data

The data was extracted from various databases within CalPERS and placed in a database by a series of extract programs. Included in this data are:

- individual member and beneficiary information,
- employment and payroll information,
- accumulated contributions with interest,
- service information,
- benefit payment information,
- information about the various organizations which contract with CalPERS, and
- detailed information about the plan provisions applicable to each group of members.

## Data Validation Tests and Adjustments

Once the information is extracted from the various computer systems into the database, update queries are then run against this data to correct for flaws found in the data. This part of the process is intended to validate the participant data for all CalPERS plans. The data is then checked for reasonableness and consistency with data from the prior valuation.

Checks on the data include:

- a reconciliation of the membership of the plans,
- comparisons of various member statistics (average attained age, average entry age, average salary, etc.) for each plan with those from the prior valuation,
- comparisons of pension amounts for each retiree and beneficiary receiving payments with those from the prior valuation,
- checks for invalid ages and dates, and
- reasonableness checks on various key data elements such as service and salary.

As a result of the tests on the data, a number of adjustments were determined to be necessary. These included:

- dates of hire and dates of entry were adjusted where necessary to be consistent with the service fields, the date of birth and each other.

## Summary of Valuation Data

	June 30, 2009	June 30, 2010
1. <b>Number of Plans in the Risk Pool</b>	101	105
2. <b>Active Members</b>		
a) Counts	0	0
b) Average Attained Age	0.00	0.00
c) Average Entry Age of Rate Plan	0.00	0.00
d) Average Years of Service	0.00	0.00
e) Average Annual Covered Pay	\$ 0	\$ 0
f) Annual Covered Payroll	0	0
g) Projected Annual Payroll for Contribution Year	0	0
h) Present Value of Future Payroll	0	0
3. <b>Transferred Members</b>		
a) Counts	1,125	1,084
b) Average Attained Age	47.38	47.59
c) Average Years of Service	5.38	5.40
d) Average Annual Covered Pay	\$ 85,630	\$ 86,384
4. <b>Terminated Members</b>		
a) Counts	244	283
b) Average Attained Age	45.25	44.47
c) Average Years of Service	3.07	3.28
d) Average Annual Covered Pay	\$ 45,827	\$ 49,908
5. <b>Retired Members and Beneficiaries</b>		
a) Counts*	1,691	1,813
b) Average Attained Age	66.34	66.43
c) Average Annual Benefits*	\$ 16,978	\$ 17,169
6. <b>Active to Retired Ratio (2a/5a)</b>	0.00	0.00

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

\* Values may not match those on pages 25 and 26 due to inclusion of community property settlements.

## SUMMARY OF PARTICIPANT DATA

### Active Members

Counts of members included in the valuation are counts of the records processed by the valuation. Multiple records may exist for those who have service in more than one valuation group. This does not result in double counting of liabilities.

**Distribution of Active Members by Age and Service  
Years of Service at Valuation Date**

<b>Attained Age</b>	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25+</b>	<b>Total</b>
15-24	0	0	0	0	0	0	0
25-29	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0
65 and over	0	0	0	0	0	0	0
<b>All Ages</b>	0	0	0	0	0	0	0

**Distribution of Average Annual Salaries by Age and Service  
Years of Service at Valuation Date**

<b>Attained Age</b>	<b>0-4</b>	<b>5-9</b>	<b>10-14</b>	<b>15-19</b>	<b>20-24</b>	<b>25+</b>	<b>Average</b>
15-24	\$0	\$0	\$0	\$0	\$0	\$0	\$0
25-29	0	0	0	0	0	0	0
30-34	0	0	0	0	0	0	0
35-39	0	0	0	0	0	0	0
40-44	0	0	0	0	0	0	0
45-49	0	0	0	0	0	0	0
50-54	0	0	0	0	0	0	0
55-59	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0
65 and over	0	0	0	0	0	0	0
<b>Average</b>	0	0	0	0	0	0	0

## Transferred and Terminated Members

Distribution of Transfers to Other CalPERS Plans by Age and Service  
Years of Service at Valuation Date

Attained Age	0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	2	0	0	0	0	0	2	\$51,711
25-29	32	3	0	0	0	0	35	59,950
30-34	46	12	4	0	0	0	62	73,090
35-39	83	17	4	1	0	0	105	83,670
40-44	116	36	5	5	2	0	164	86,211
45-49	163	68	17	17	6	2	273	91,520
50-54	130	65	26	16	4	5	246	91,336
55-59	62	31	21	11	2	1	128	86,792
60-64	32	12	6	4	2	1	57	80,129
65 and over	7	2	2	1	0	0	12	71,060
<b>All Ages</b>	673	246	85	55	16	9	1,084	86,384

Distribution of Terminated Participants with Funds on Deposit by Age and Service  
Years of Service at Valuation Date

Attained Age	0-4	5-9	10-14	15-19	20-24	25+	Total	Average Salary
15-24	0	0	0	0	0	0	0	\$0
25-29	22	0	0	0	0	0	22	40,662
30-34	25	7	1	0	0	0	33	47,984
35-39	39	9	1	0	0	0	49	45,863
40-44	31	7	3	2	0	0	43	56,622
45-49	41	7	1	2	1	0	52	56,311
50-54	28	6	2	1	0	1	38	56,527
55-59	18	4	1	0	0	0	23	50,134
60-64	14	3	0	0	0	0	17	34,379
65 and over	6	0	0	0	0	0	6	25,037
<b>All Ages</b>	224	43	9	5	1	1	283	49,908

# SUMMARY OF PARTICIPANT DATA

## Retired Members and Beneficiaries

### Distribution of Retirees and Beneficiaries by Age and Retirement Type\*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 30	0	0	0	0	1	0	1
30-34	0	0	0	0	0	1	1
35-39	0	0	4	0	0	1	5
40-44	0	0	16	0	1	2	19
45-49	0	1	35	0	2	5	43
50-54	83	4	67	0	0	3	157
55-59	180	3	89	1	4	17	294
60-64	198	4	107	2	1	23	335
65-69	195	5	105	0	2	30	337
70-74	143	2	54	1	5	32	237
75-79	112	2	29	0	0	29	172
80-84	64	4	15	1	2	20	106
85 and Over	69	1	4	1	1	27	103
<b>All Ages</b>	1044	26	525	6	19	190	1,810

### Distribution of Average Annual Amounts for Retirees and Beneficiaries by Age and Retirement Type\*

Attained Age	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 30	\$0	\$0	\$0	\$0	\$39,253	\$0	\$39,253
30-34	0	0	0	0	0	1,551	1,551
35-39	0	0	9,546	0	0	12,629	10,162
40-44	0	0	21,839	0	722	12,950	19,792
45-49	0	3,672	20,709	0	16,515	9,398	18,803
50-54	13,019	1,977	18,997	0	0	3,768	15,112
55-59	17,548	4,498	16,143	4,913	15,173	16,935	16,879
60-64	17,035	14,801	21,700	18,993	29,005	12,427	18,229
65-69	19,925	8,539	19,123	0	4,417	16,418	19,102
70-74	20,879	4,190	19,733	6,389	18,649	13,419	19,362
75-79	16,483	20,335	18,377	0	0	11,864	16,068
80-84	13,603	6,258	18,190	13,829	11,193	7,619	12,802
85 and Over	13,024	1,258	21,031	2,901	18,333	9,117	12,150
<b>All Ages</b>	17,336	7,781	19,252	11,003	16,079	12,298	17,191

## Retired Members and Beneficiaries (continued)

## Distribution of Retirees and Beneficiaries by Years Retired and Retirement Type\*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Total
Under 5 Yrs	341	1	48	2	2	78	472
5-9	218	6	81	0	2	49	356
10-14	182	5	104	2	2	31	326
15-19	136	6	92	0	2	9	245
20-24	92	1	63	0	5	4	165
25-29	42	3	67	1	1	4	118
30 and Over	33	4	70	1	5	15	128
<b>All Years</b>	<b>1044</b>	<b>26</b>	<b>525</b>	<b>6</b>	<b>19</b>	<b>190</b>	<b>1,810</b>

## Distribution of Average Annual Amounts for Retirees and Beneficiaries by Years Retired and Retirement Type\*

Years Retired	Service Retirement	Non-Industrial Disability	Industrial Disability	Non-Industrial Death	Industrial Death	Death After Retirement	Average
Under 5 Yrs	\$17,470	\$633	\$11,959	\$4,267	\$4,417	\$12,955	\$16,017
5-9	17,406	10,012	18,670	0	18,144	11,634	16,779
10-14	17,937	7,507	23,117	20,378	2,817	14,972	19,070
15-19	19,779	10,974	21,853	0	34,129	7,318	20,002
20-24	15,627	2,691	14,666	0	16,930	7,662	15,028
25-29	8,838	3,492	19,099	13,829	21,156	6,361	14,591
30 and Over	17,670	6,266	20,039	2,901	16,135	11,330	17,691
<b>All Years</b>	<b>17,336</b>	<b>7,781</b>	<b>19,252</b>	<b>11,003</b>	<b>16,079</b>	<b>12,298</b>	<b>17,191</b>

\* Counts of members do not include alternate payees receiving benefits while the member is still working. Therefore, the total counts may not match information on page 24 of the report. Multiple records may exist for those who have service in more than one coverage group. This does not result in double counting of liabilities.



## APPENDIX A

- STATEMENT OF ACTUARIAL DATA, METHODS AND ASSUMPTIONS



## Data

As stated in the Actuarial Certification, the data which serves as the basis of this valuation has been obtained from the various CalPERS databases. We have reviewed the valuation data and believe that it is reasonable and appropriate in aggregate. We are unaware of any potential data issues that would have a material effect on the results of this valuation, except that data does not always contain the latest salary information for former members now in reciprocal systems and does not recognize the potential for usually large salary deviation in certain cases such as elected officials. Therefore, salary information in these cases may not be accurate. These situations are relatively infrequent, however, and when they do occur, they generally do not have a material impact on the employer contribution rates.

## Actuarial Methods

### Funding Method

The actuarial funding method used for the Retirement Program is the Entry Age Normal Cost Method. Under this method, projected benefits are determined for all members and the associated liabilities are spread in a manner that produces level annual cost as a percent of pay in each year from the age of hire (entry age) to the assumed retirement age. The cost allocated to the current fiscal year is called the normal cost.

The actuarial accrued liability for active members is then calculated as the portion of the total cost of the plan allocated to prior years. The actuarial accrued liability for members currently receiving benefits, for active members beyond the assumed retirement age, and for members entitled to deferred benefits, is equal to the present value of the benefits expected to be paid. No normal costs are applicable for these participants.

The excess of the total actuarial accrued liability over the actuarial value of plan assets is called the unfunded actuarial accrued liability. Funding requirements are determined by adding the normal cost and an amortization of the unfunded liability as a level percentage of assumed future payrolls. All changes in liability due to plan amendments, changes in actuarial assumptions, or changes in actuarial methodology are amortized separately over a 20-year period. All gains or losses are tracked and amortized over a rolling 30-year period with the exception of gains and losses in fiscal years 2008-2009, 2009-2010 and 2010-2011 in which each year's gains or losses will be isolated and amortized over fixed and declining 30 year periods (as opposed to the current rolling 30-year amortization). If a pool's accrued liability exceeds the actuarial value of assets, the annual contribution with respect to the total unfunded liability may not be less than the amount produced by a 30-year amortization of the unfunded liability.

Additional contributions will be required for any plan or pool if their cash flows hamper adequate funding progress by preventing the expected funded status on a market value of assets basis of the plan to either:

- Increase by at least 15% by June 30, 2043; or
- Reach a level of 75% funded by June 30, 2043

The necessary additional contribution will be obtained by changing the amortization period of the gains and losses prior to 2009 to a period which will result in the satisfaction of the above criteria. CalPERS actuaries will reassess the criteria above when performing each future valuation to determine whether or not additional contributions are necessary.

An exception to the funding rules above is used whenever the application of such rules results in inconsistencies. In these cases a "fresh start" approach is used. This simply means that the current unfunded actuarial liability is projected and amortized over a set number of years. For instance, if the annual contribution on the total unfunded liability was less than the amount produced by a 30-year amortization of the unfunded liability, the plan actuary would implement a 30-year fresh start. In addition, a fresh start is needed in the following situations:

- 1) when a positive payment would be required on a negative unfunded actuarial liability (or conversely a negative payment on a positive unfunded actuarial liability); or

## APPENDIX A

- 2) when there are excess assets, rather than an unfunded liability. In this situation a 30-year fresh start is used, unless a larger fresh start is needed to avoid a negative total rate.

It should be noted that the actuary may choose to use a fresh start under other circumstances. In all cases, the period of the fresh start is chosen by the actuary according to his or her best judgment, and will not be less than five years nor greater than 30 years.

### **Asset Valuation Method**

In order to dampen the effect of short term market value fluctuations on employer contribution rates, the following asset smoothing technique is used. First an Expected Value of Assets is computed by bringing forward the prior year's Actuarial Value of Assets and the contributions received and benefits paid during the year at the assumed actuarial rate of return. The Actuarial Value of Assets is then computed as the Expected Value of Assets plus one-fifteenth of the difference between the actual Market Value of Assets and the Expected Value of Assets as of the valuation date. However in no case will the Actuarial Value of Assets be less than 80% nor greater than 120% of the actual Market Value of Assets.

In June 2009, the CalPERS Board adopted changes to the asset smoothing method in order to phase in over a three year period the impact of the -24% investment loss experienced by CalPERS in fiscal year 2008-2009. The following changes were adopted:

- Increase the corridor limits for the actuarial value of assets from 80%-120% of market value to 60%-140% of market value on June 30, 2009
- Reduce the corridor limits for the actuarial value of assets to 70%-130% of market value on June 30, 2010
- Return to the 80%-120% of market value corridor limits for the actuarial value of assets on June 30, 2011 and thereafter

## Miscellaneous

### **Superfunded Status**

If a rate plan is superfunded (actuarial value of assets exceeds the present value of benefits), as of the most recently completed annual valuation, the employer may cover their employees' member contributions (both taxed and tax-deferred) using their employer assets during the fiscal year for which this valuation applies. This would entail transferring assets within the Public Employees' Retirement Fund (PERF) from the employer account to the member accumulated contribution accounts. This change was implemented effective January 1, 1999 pursuant to Chapter 231 (Assembly Bill 2099) which added Government Code Section 20816.

Superfunded status applies only to individual plans, not risk pools. For rate plans within a risk pool, actuarial value of assets is the sum of the rate plan's side fund plus the rate plan's pro-rata share of non-side fund assets. Superfunded status is determined only on annual valuation dates.

### **Internal Revenue Code Section 415**

The limitations on benefits imposed by Internal Revenue Code Section 415 were not taken into account in this valuation. The effect of these limitations has been deemed immaterial on the overall results of this valuation.

### **Internal Revenue Code Section 401(a)(17)**

The limitations on compensation imposed by Internal Revenue Code Section 401(a)(17) were taken into account in this valuation. It was determined that this change generally had minimal impact on the employer rates and no special amortization base has been created.

# ACTUARIAL ASSUMPTIONS

## **Economic Assumptions**

### **Investment Return**

7.75% compounded annually (net of expenses). This assumption is used for all plans.

### **Salary Growth**

Annual increases vary by category, entry age, and duration of service. Sample assumed increases are shown below.

#### **Public Agency Miscellaneous**

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1445	0.1265	0.1005
1	0.1215	0.1075	0.0875
2	0.1035	0.0935	0.0775
3	0.0905	0.0825	0.0695
4	0.0805	0.0735	0.0635
5	0.0725	0.0675	0.0585
10	0.0505	0.0485	0.0435
15	0.0455	0.0435	0.0385
20	0.0415	0.0395	0.0355
25	0.0385	0.0385	0.0355
30	0.0385	0.0385	0.0355

#### **Public Agency Fire**

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1075	0.1075	0.1045
1	0.0975	0.0965	0.0875
2	0.0895	0.0855	0.0725
3	0.0825	0.0775	0.0625
4	0.0765	0.0705	0.0535
5	0.0715	0.0645	0.0475
10	0.0535	0.0485	0.0375
15	0.0435	0.0415	0.0365
20	0.0395	0.0385	0.0355
25	0.0375	0.0375	0.0355
30	0.0375	0.0375	0.0355

#### **Public Agency Police**

<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 30</u>	<u>Entry Age 40</u>
0	0.1115	0.1115	0.1115
1	0.0955	0.0955	0.0955
2	0.0835	0.0835	0.0805
3	0.0745	0.0725	0.0665
4	0.0675	0.0635	0.0575
5	0.0615	0.0575	0.0505
10	0.0475	0.0445	0.0365
15	0.0435	0.0415	0.0355
20	0.0395	0.0385	0.0355
25	0.0375	0.0365	0.0355
30	0.0375	0.0365	0.0355

**Public Agency County Peace Officers**

Duration of Service	Entry Age 20	Entry Age 30	Entry Age 40
0	0.1315	0.1315	0.1315
1	0.1115	0.1085	0.1055
2	0.0965	0.0915	0.0865
3	0.0845	0.0795	0.0735
4	0.0755	0.0695	0.0635
5	0.0685	0.0625	0.0555
10	0.0485	0.0445	0.0405
15	0.0435	0.0405	0.0385
20	0.0395	0.0385	0.0365
25	0.0375	0.0365	0.0355
30	0.0375	0.0365	0.0355

**Schools**

Duration of Service	Entry Age 20	Entry Age 30	Entry Age 40
0	0.1105	0.0985	0.0845
1	0.0965	0.0875	0.0765
2	0.0865	0.0795	0.0695
3	0.0775	0.0725	0.0645
4	0.0715	0.0665	0.0595
5	0.0655	0.0625	0.0555
10	0.0475	0.0465	0.0435
15	0.0415	0.0405	0.0375
20	0.0385	0.0375	0.0345
25	0.0365	0.0365	0.0345
30	0.0365	0.0365	0.0345

- The Miscellaneous salary scale is used for Local Prosecutors.
- The Police salary scale is used for Other Safety, Local Sheriff, and School Police.

**Overall Payroll Growth**

3.25% compounded annually (used in projecting the payroll over which the unfunded liability is amortized). This assumption is used for all plans.

**Inflation**

3.00% compounded annually. This assumption is used for all plans.

**Non-valued Potential Additional Liabilities**

The potential liability loss for a cost-of-living increase exceeding the 3% inflation assumption, and any potential liability loss from future member service purchases are not reflected in the valuation.

**Miscellaneous Loading Factors**

**Credit for Unused Sick Leave**

Final Average Salary is increased by 1% for those agencies that have accepted the provision providing Credit for Unused Sick Leave.

**Conversion of Employer Paid Member Contributions (EPMC)**

Final Average Salary is increased by the Employee Contribution Rate for those agencies that have contracted for the provision providing for the Conversion of Employer Paid Member Contributions (EPMC) during the final compensation period.

**Norris Decision (Best Factors)**

Employees hired prior to July 1, 1982 have projected benefit amounts increased in order to reflect the use of "Best Factors" for these employees in the calculation of optional benefit forms. This is due to a 1983 Supreme Court decision, known as the Norris decision, which required males and females to be treated equally in the determination of benefit amounts. Consequently, anyone already employed at that time is given the best possible conversion factor when optional benefits are determined. No loading is necessary for employees hired after July 1, 1982.

**Demographic Assumptions****Pre-Retirement Mortality**

Non-Industrial Death Rates vary by age and gender. Industrial Death rates vary by age. See sample rates in table below. The non-industrial death rates are used for all plans. The industrial death rates are used for Safety Plans (except for Local Prosecutor safety members where the corresponding Miscellaneous Plan does not have the Industrial Death Benefit).

Age	Non-Industrial Death (Not Job-Related)		Industrial Death (Job-Related)
	Male	Female	Male and Female
20	0.00047	0.00016	0.00003
25	0.00050	0.00026	0.00007
30	0.00053	0.00036	0.00010
35	0.00067	0.00046	0.00012
40	0.00087	0.00065	0.00013
45	0.00120	0.00093	0.00014
50	0.00176	0.00126	0.00015
55	0.00260	0.00176	0.00016
60	0.00395	0.00266	0.00017
65	0.00608	0.00419	0.00018
70	0.00914	0.00649	0.00019
75	0.01220	0.00878	0.00020
80	0.01527	0.01108	0.00021

Miscellaneous Plans usually have Industrial Death rates set to zero unless the agency has specifically contracted for Industrial Death benefits. If so, each Non-Industrial Death rate shown above will be split into two components: 99% will become the Non-Industrial Death rate and 1% will become the Industrial Death rate.

**Post-Retirement Mortality**

Rates vary by age, type of retirement and gender. See sample rates in table below. These rates are used for all plans.

Age	Healthy Recipients		Non-Industrially Disabled (Not Job-Related)		Industrially Disabled (Job-Related)	
	Male	Female	Male	Female	Male	Female
50	0.00239	0.00125	0.01632	0.01245	0.00443	0.00356
55	0.00474	0.00243	0.01936	0.01580	0.00563	0.00546
60	0.00720	0.00431	0.02293	0.01628	0.00777	0.00798
65	0.01069	0.00775	0.03174	0.01969	0.01388	0.01184
70	0.01675	0.01244	0.03870	0.03019	0.02236	0.01716
75	0.03080	0.02071	0.06001	0.03915	0.03585	0.02665
80	0.05270	0.03749	0.08388	0.05555	0.06926	0.04528
85	0.09775	0.07005	0.14035	0.09577	0.11799	0.08017
90	0.16747	0.12404	0.21554	0.14949	0.16575	0.13775
95	0.25659	0.21556	0.31025	0.23055	0.26108	0.23331
100	0.34551	0.31876	0.45905	0.37662	0.40918	0.35165
105	0.58527	0.56093	0.67923	0.61523	0.64127	0.60135
110	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000



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### Marital Status

For active members, a percentage married upon retirement is assumed according to the following table.

<u>Member Category</u>	<u>Percent Married</u>
Miscellaneous Member	85%
Local Police	90%
Local Fire	90%
Other Local Safety	90%
School Police	90%

### Age of Spouse

It is assumed that female spouses are 3 years younger than male spouses. This assumption is used for all plans.

### Terminated Members

It is assumed that terminated members refund immediately if non-vested. Terminated members who are vested are assumed to follow the same service retirement pattern as active members but with a load to reflect the expected higher rates of retirement, especially at lower ages. The following table shows the load factors that are applied to the service retirement assumption for active members to obtain the service retirement pattern for separated vested members:

<u>Age</u>	<u>Load Factor</u>
50	450%
51	250%
52 through 56	200%
57 through 60	150%
61 through 64	125%
65 and above	100% (no change)

### Termination with Refund

Rates vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

<u>Public Agency Miscellaneous</u>						
<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 25</u>	<u>Entry Age 30</u>	<u>Entry Age 35</u>	<u>Entry Age 40</u>	<u>Entry Age 45</u>
0	0.1742	0.1674	0.1606	0.1537	0.1468	0.1400
1	0.1545	0.1477	0.1409	0.1339	0.1271	0.1203
2	0.1348	0.1280	0.1212	0.1142	0.1074	0.1006
3	0.1151	0.1083	0.1015	0.0945	0.0877	0.0809
4	0.0954	0.0886	0.0818	0.0748	0.0680	0.0612
5	0.0212	0.0193	0.0174	0.0155	0.0136	0.0116
10	0.0138	0.0121	0.0104	0.0088	0.0071	0.0055
15	0.0060	0.0051	0.0042	0.0032	0.0023	0.0014
20	0.0037	0.0029	0.0021	0.0013	0.0005	0.0001
25	0.0017	0.0011	0.0005	0.0001	0.0001	0.0001
30	0.0005	0.0001	0.0001	0.0001	0.0001	0.0001
35	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001

<b>Public Agency Safety</b>			
<u>Duration of Service</u>	<u>Fire</u>	<u>Police</u>	<u>County Peace Officer</u>
0	0.0710	0.1013	0.0997
1	0.0554	0.0636	0.0782
2	0.0398	0.0271	0.0566
3	0.0242	0.0258	0.0437
4	0.0218	0.0245	0.0414
5	0.0029	0.0086	0.0145
10	0.0009	0.0053	0.0089
15	0.0006	0.0027	0.0045
20	0.0005	0.0017	0.0020
25	0.0003	0.0012	0.0009
30	0.0003	0.0009	0.0006
35	0.0003	0.0009	0.0006

The Police Termination and Refund rates are used for Public Agency Local Prosecutors, Other Safety, Local Sheriff, and School Police.

<b>Schools</b>						
<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 25</u>	<u>Entry Age 30</u>	<u>Entry Age 35</u>	<u>Entry Age 40</u>	<u>Entry Age 45</u>
0	0.1730	0.1627	0.1525	0.1422	0.1319	0.1217
1	0.1585	0.1482	0.1379	0.1277	0.1174	0.1071
2	0.1440	0.1336	0.1234	0.1131	0.1028	0.0926
3	0.1295	0.1192	0.1089	0.0987	0.0884	0.0781
4	0.1149	0.1046	0.0944	0.0841	0.0738	0.0636
5	0.0278	0.0249	0.0221	0.0192	0.0164	0.0135
10	0.0172	0.0147	0.0122	0.0098	0.0074	0.0049
15	0.0115	0.0094	0.0074	0.0053	0.0032	0.0011
20	0.0073	0.0055	0.0038	0.0020	0.0002	0.0002
25	0.0037	0.0023	0.0010	0.0002	0.0002	0.0002
30	0.0015	0.0003	0.0002	0.0002	0.0002	0.0002
35	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002

#### Termination with Vested Benefits

Rate vary by entry age and service for Miscellaneous Plans. Rates vary by service for Safety Plans. See sample rates in tables below.

<b>Public Agency Miscellaneous</b>					
<u>Duration of Service</u>	<u>Entry Age 20</u>	<u>Entry Age 25</u>	<u>Entry Age 30</u>	<u>Entry Age 35</u>	<u>Entry Age 40</u>
5	0.0656	0.0597	0.0537	0.0477	0.0418
10	0.0530	0.0466	0.0403	0.0339	0.0000
15	0.0443	0.0373	0.0305	0.0000	0.0000
20	0.0333	0.0261	0.0000	0.0000	0.0000
25	0.0212	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	0.0000

**Public Agency Safety**

Duration of Service	Fire	Police	County Peace Officer
5	0.0162	0.0163	0.0265
10	0.0061	0.0126	0.0204
15	0.0058	0.0082	0.0130
20	0.0053	0.0065	0.0074
25	0.0047	0.0058	0.0043
30	0.0045	0.0056	0.0030
35	0.0000	0.0000	0.0000

- When a member is eligible to retire, the termination with vested benefits probability is set to zero.
- After termination with vested benefits, a miscellaneous member is assumed to retire at age 59 and a safety member at age 54.
- The Police Termination with vested benefits rates are used for Public Agency Local Prosecutors, Other Safety, Local Sheriff, and School Police.

**Schools**

Duration of Service	Entry Age 20	Entry Age 25	Entry Age 30	Entry Age 35	Entry Age 40
5	0.0816	0.0733	0.0649	0.0566	0.0482
10	0.0629	0.0540	0.0450	0.0359	0.0000
15	0.0537	0.0440	0.0344	0.0000	0.0000
20	0.0420	0.0317	0.0000	0.0000	0.0000
25	0.0291	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000	0.0000

## APPENDIX A

### Non-Industrial (Not Job-Related) Disability

Rates vary by age and gender for Miscellaneous Plans.

Rates vary by age for Safety Plans

Age	Miscellaneous		Fire	Police	County Peace Officer	Schools	
	Male	Female	Male and Female	Male and Female	Male and Female	Male	Female
20	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
25	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
30	0.0002	0.0002	0.0001	0.0002	0.0001	0.0002	0.0001
35	0.0006	0.0009	0.0001	0.0003	0.0004	0.0006	0.0004
40	0.0015	0.0016	0.0001	0.0004	0.0007	0.0014	0.0009
45	0.0025	0.0024	0.0002	0.0005	0.0013	0.0028	0.0017
50	0.0033	0.0031	0.0005	0.0008	0.0018	0.0044	0.0030
55	0.0037	0.0031	0.0010	0.0013	0.0010	0.0049	0.0034
60	0.0038	0.0025	0.0015	0.0020	0.0006	0.0043	0.0024

- The Miscellaneous Non-Industrial Disability rates are used for Local Prosecutors.
- The Police Non-Industrial Disability rates are used for Other Safety, Local Sheriff, and School Police.

### Industrial (Job-Related) Disability

Rates vary by age and category.

Age	Fire	Police	County Peace Officer
20	0.0002	0.0007	0.0003
25	0.0012	0.0032	0.0015
30	0.0025	0.0064	0.0031
35	0.0037	0.0097	0.0046
40	0.0049	0.0129	0.0063
45	0.0061	0.0161	0.0078
50	0.0074	0.0192	0.0101
55	0.0721	0.0668	0.0173
60	0.0721	0.0668	0.0173

- The Police Industrial Disability rates are used for Local Sheriff and Other Safety.
- Fifty Percent of the Police Industrial Disability rates are used for School Police.
- One Percent of the Police Industrial Disability rates are used for Local Prosecutors.
- Normally, rates are zero for Miscellaneous Plans unless the agency has specifically contracted for Industrial Disability benefits. If so, each Miscellaneous Non-Industrial Disability rate will be split into two components: 50% will become the Non-Industrial Disability rate and 50% will become the Industrial Disability rate.

### Service Retirement

Retirement rate vary by age, service, and formula, except for the safety  $\frac{1}{2}$  @ 55 and 2% @ 55 formulas, where retirement rates vary by age only.

**Public Agency Miscellaneous 1.5% @ 65**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.008	0.011	0.013	0.015	0.017	0.019
51	0.007	0.010	0.012	0.013	0.015	0.017
52	0.010	0.014	0.017	0.019	0.021	0.024
53	0.008	0.012	0.015	0.017	0.019	0.022
54	0.012	0.016	0.019	0.022	0.025	0.028
55	0.018	0.025	0.031	0.035	0.038	0.043
56	0.015	0.021	0.025	0.029	0.032	0.036
57	0.020	0.028	0.033	0.038	0.043	0.048
58	0.024	0.033	0.040	0.046	0.052	0.058
59	0.028	0.039	0.048	0.054	0.060	0.067
60	0.049	0.069	0.083	0.094	0.105	0.118
61	0.062	0.087	0.106	0.120	0.133	0.150
62	0.104	0.146	0.177	0.200	0.223	0.251
63	0.099	0.139	0.169	0.191	0.213	0.239
64	0.097	0.136	0.165	0.186	0.209	0.233
65	0.140	0.197	0.240	0.271	0.302	0.339
66	0.092	0.130	0.157	0.177	0.198	0.222
67	0.129	0.181	0.220	0.249	0.277	0.311
68	0.092	0.129	0.156	0.177	0.197	0.221
69	0.092	0.130	0.158	0.178	0.199	0.224
70	0.103	0.144	0.175	0.198	0.221	0.248

**Public Agency Miscellaneous 2% @ 60**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.011	0.015	0.018	0.021	0.023	0.026
51	0.009	0.013	0.016	0.018	0.020	0.023
52	0.013	0.018	0.022	0.025	0.028	0.031
53	0.011	0.016	0.019	0.022	0.025	0.028
54	0.015	0.021	0.025	0.028	0.032	0.036
55	0.023	0.032	0.039	0.044	0.049	0.055
56	0.019	0.027	0.032	0.037	0.041	0.046
57	0.025	0.035	0.042	0.048	0.054	0.060
58	0.030	0.042	0.051	0.058	0.065	0.073
59	0.035	0.049	0.060	0.068	0.076	0.085
60	0.062	0.087	0.105	0.119	0.133	0.149
61	0.079	0.110	0.134	0.152	0.169	0.190
62	0.132	0.186	0.225	0.255	0.284	0.319
63	0.126	0.178	0.216	0.244	0.272	0.305
64	0.122	0.171	0.207	0.234	0.262	0.293
65	0.173	0.243	0.296	0.334	0.373	0.418
66	0.114	0.160	0.194	0.219	0.245	0.274
67	0.159	0.223	0.271	0.307	0.342	0.384
68	0.113	0.159	0.193	0.218	0.243	0.273
69	0.114	0.161	0.195	0.220	0.246	0.276
70	0.127	0.178	0.216	0.244	0.273	0.306

**Public Agency Miscellaneous 2% @ 55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.015	0.020	0.024	0.029	0.033	0.039
51	0.013	0.016	0.020	0.024	0.027	0.033
52	0.014	0.018	0.022	0.027	0.030	0.036
53	0.017	0.022	0.027	0.032	0.037	0.043
54	0.027	0.034	0.041	0.049	0.056	0.067
55	0.050	0.064	0.078	0.094	0.107	0.127
56	0.045	0.057	0.069	0.083	0.095	0.113
57	0.048	0.061	0.074	0.090	0.102	0.122
58	0.052	0.066	0.080	0.097	0.110	0.131
59	0.060	0.076	0.092	0.111	0.127	0.151
60	0.072	0.092	0.112	0.134	0.153	0.182
61	0.089	0.113	0.137	0.165	0.188	0.224
62	0.128	0.162	0.197	0.237	0.270	0.322
63	0.129	0.164	0.199	0.239	0.273	0.325
64	0.116	0.148	0.180	0.216	0.247	0.294
65	0.174	0.221	0.269	0.323	0.369	0.439
66	0.135	0.171	0.208	0.250	0.285	0.340
67	0.133	0.169	0.206	0.247	0.282	0.336
68	0.118	0.150	0.182	0.219	0.250	0.297
69	0.116	0.147	0.179	0.215	0.246	0.293
70	0.138	0.176	0.214	0.257	0.293	0.349

**Public Agency Miscellaneous 2.5% @ 55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.026	0.033	0.040	0.048	0.055	0.062
51	0.021	0.026	0.032	0.038	0.043	0.049
52	0.021	0.026	0.032	0.038	0.043	0.049
53	0.026	0.033	0.040	0.048	0.055	0.062
54	0.043	0.054	0.066	0.078	0.089	0.101
55	0.088	0.112	0.136	0.160	0.184	0.208
56	0.055	0.070	0.085	0.100	0.115	0.130
57	0.061	0.077	0.094	0.110	0.127	0.143
58	0.072	0.091	0.111	0.130	0.150	0.169
59	0.083	0.105	0.128	0.150	0.173	0.195
60	0.088	0.112	0.136	0.160	0.184	0.208
61	0.083	0.105	0.128	0.150	0.173	0.195
62	0.121	0.154	0.187	0.220	0.253	0.286
63	0.105	0.133	0.162	0.190	0.219	0.247
64	0.105	0.133	0.162	0.190	0.219	0.247
65	0.143	0.182	0.221	0.260	0.299	0.338
66	0.105	0.133	0.162	0.190	0.219	0.247
67	0.105	0.133	0.162	0.190	0.219	0.247
68	0.105	0.133	0.162	0.190	0.219	0.247
69	0.105	0.133	0.162	0.190	0.219	0.247
70	0.125	0.160	0.194	0.228	0.262	0.296

**Public Agency Miscellaneous 2.7% @ 55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.028	0.035	0.043	0.050	0.058	0.065
51	0.022	0.028	0.034	0.040	0.046	0.052
52	0.022	0.028	0.034	0.040	0.046	0.052
53	0.028	0.035	0.043	0.050	0.058	0.065
54	0.044	0.056	0.068	0.080	0.092	0.104
55	0.091	0.116	0.140	0.165	0.190	0.215
56	0.061	0.077	0.094	0.110	0.127	0.143
57	0.063	0.081	0.098	0.115	0.132	0.150
58	0.074	0.095	0.115	0.135	0.155	0.176
59	0.083	0.105	0.128	0.150	0.173	0.195
60	0.088	0.112	0.136	0.160	0.184	0.208
61	0.085	0.109	0.132	0.155	0.178	0.202
62	0.124	0.158	0.191	0.225	0.259	0.293
63	0.107	0.137	0.166	0.195	0.224	0.254
64	0.107	0.137	0.166	0.195	0.224	0.254
65	0.146	0.186	0.225	0.265	0.305	0.345
66	0.107	0.137	0.166	0.195	0.224	0.254
67	0.107	0.137	0.166	0.195	0.224	0.254
68	0.107	0.137	0.166	0.195	0.224	0.254
69	0.107	0.137	0.166	0.195	0.224	0.254
70	0.129	0.164	0.199	0.234	0.269	0.304

**Public Agency Miscellaneous 3% @ 60**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.026	0.033	0.040	0.048	0.055	0.062
51	0.021	0.026	0.032	0.038	0.043	0.049
52	0.019	0.025	0.030	0.035	0.040	0.046
53	0.025	0.032	0.038	0.045	0.052	0.059
54	0.039	0.049	0.060	0.070	0.081	0.091
55	0.083	0.105	0.128	0.150	0.173	0.195
56	0.055	0.070	0.085	0.100	0.115	0.130
57	0.061	0.077	0.094	0.110	0.127	0.143
58	0.072	0.091	0.111	0.130	0.150	0.169
59	0.080	0.102	0.123	0.145	0.167	0.189
60	0.094	0.119	0.145	0.170	0.196	0.221
61	0.088	0.112	0.136	0.160	0.184	0.208
62	0.127	0.161	0.196	0.230	0.265	0.299
63	0.110	0.140	0.170	0.200	0.230	0.260
64	0.110	0.140	0.170	0.200	0.230	0.260
65	0.149	0.189	0.230	0.270	0.311	0.351
66	0.110	0.140	0.170	0.200	0.230	0.260
67	0.110	0.140	0.170	0.200	0.230	0.260
68	0.110	0.140	0.170	0.200	0.230	0.260
69	0.110	0.140	0.170	0.200	0.230	0.260
70	0.132	0.168	0.204	0.240	0.276	0.312

**Public Agency Fire ½ @ 55 and 2% @ 55**

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
50	0.01588	56	0.11079
51	0.00000	57	0.00000
52	0.03442	58	0.09499
53	0.01990	59	0.04409
54	0.04132	60	1.00000
55	0.07513		

**Public Agency Police ½ @ 55 and 2% @ 55**

<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
50	0.02552	56	0.06921
51	0.00000	57	0.05113
52	0.01637	58	0.07241
53	0.02717	59	0.07043
54	0.00949	60	1.00000
55	0.16674		

**Public Agency Police 2% @ 50**

<u>Age</u>	<u>Duration of Service</u>					
	<u>5 Years</u>	<u>10 Years</u>	<u>15 Years</u>	<u>20 Years</u>	<u>25 Years</u>	<u>30 Years</u>
50	0.014	0.014	0.014	0.014	0.025	0.045
51	0.012	0.012	0.012	0.012	0.023	0.040
52	0.026	0.026	0.026	0.026	0.048	0.086
53	0.052	0.052	0.052	0.052	0.096	0.171
54	0.070	0.070	0.070	0.070	0.128	0.227
55	0.090	0.090	0.090	0.090	0.165	0.293
56	0.064	0.064	0.064	0.064	0.117	0.208
57	0.071	0.071	0.071	0.071	0.130	0.232
58	0.063	0.063	0.063	0.063	0.115	0.205
59	0.140	0.140	0.140	0.140	0.174	0.254
60	0.140	0.140	0.140	0.140	0.172	0.251
61	0.140	0.140	0.140	0.140	0.172	0.251
62	0.140	0.140	0.140	0.140	0.172	0.251
63	0.140	0.140	0.140	0.140	0.172	0.251
64	0.140	0.140	0.140	0.140	0.172	0.251
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.



**Public Agency Fire 2%@50**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.007	0.007	0.007	0.007	0.010	0.015
51	0.008	0.008	0.008	0.008	0.013	0.019
52	0.017	0.017	0.017	0.017	0.027	0.040
53	0.047	0.047	0.047	0.047	0.072	0.107
54	0.064	0.064	0.064	0.064	0.098	0.147
55	0.087	0.087	0.087	0.087	0.134	0.200
56	0.078	0.078	0.078	0.078	0.120	0.180
57	0.090	0.090	0.090	0.090	0.139	0.208
58	0.079	0.079	0.079	0.079	0.122	0.182
59	0.073	0.073	0.073	0.073	0.112	0.168
60	0.114	0.114	0.114	0.114	0.175	0.262
61	0.114	0.114	0.114	0.114	0.175	0.262
62	0.114	0.114	0.114	0.114	0.175	0.262
63	0.114	0.114	0.114	0.114	0.175	0.262
64	0.114	0.114	0.114	0.114	0.175	0.262
65	1.000	1.000	1.000	1.000	1.000	1.000

**Public Agency Police 3%@ 55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.019	0.019	0.019	0.019	0.040	0.060
51	0.024	0.024	0.024	0.024	0.049	0.074
52	0.024	0.024	0.024	0.024	0.051	0.077
53	0.059	0.059	0.059	0.059	0.121	0.183
54	0.069	0.069	0.069	0.069	0.142	0.215
55	0.116	0.116	0.116	0.116	0.240	0.363
56	0.076	0.076	0.076	0.076	0.156	0.236
57	0.058	0.058	0.058	0.058	0.120	0.181
58	0.076	0.076	0.076	0.076	0.157	0.237
59	0.094	0.094	0.094	0.094	0.193	0.292
60	0.141	0.141	0.141	0.141	0.290	0.438
61	0.094	0.094	0.094	0.094	0.193	0.292
62	0.118	0.118	0.118	0.118	0.241	0.365
63	0.094	0.094	0.094	0.094	0.193	0.292
64	0.094	0.094	0.094	0.094	0.193	0.292
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

**Public Agency Fire 3%@55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.012	0.012	0.012	0.018	0.028	0.033
51	0.008	0.008	0.008	0.012	0.019	0.022
52	0.018	0.018	0.018	0.027	0.042	0.050
53	0.043	0.043	0.043	0.062	0.098	0.114
54	0.057	0.057	0.057	0.083	0.131	0.152
55	0.092	0.092	0.092	0.134	0.211	0.246
56	0.081	0.081	0.081	0.118	0.187	0.218
57	0.100	0.100	0.100	0.146	0.230	0.268
58	0.081	0.081	0.081	0.119	0.187	0.219
59	0.078	0.078	0.078	0.113	0.178	0.208
60	0.117	0.117	0.117	0.170	0.267	0.312
61	0.078	0.078	0.078	0.113	0.178	0.208
62	0.098	0.098	0.098	0.141	0.223	0.260
63	0.078	0.078	0.078	0.113	0.178	0.208
64	0.078	0.078	0.078	0.113	0.178	0.208
65	1.000	1.000	1.000	1.000	1.000	1.000

**Public Agency Police 3%@ 50**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.070	0.070	0.070	0.131	0.193	0.249
51	0.050	0.050	0.050	0.095	0.139	0.180
52	0.061	0.061	0.061	0.116	0.171	0.220
53	0.069	0.069	0.069	0.130	0.192	0.247
54	0.071	0.071	0.071	0.134	0.197	0.255
55	0.090	0.090	0.090	0.170	0.250	0.322
56	0.069	0.069	0.069	0.130	0.191	0.247
57	0.080	0.080	0.080	0.152	0.223	0.288
58	0.087	0.087	0.087	0.164	0.242	0.312
59	0.090	0.090	0.090	0.170	0.251	0.323
60	0.135	0.135	0.135	0.255	0.377	0.485
61	0.090	0.090	0.090	0.170	0.251	0.323
62	0.113	0.113	0.113	0.213	0.314	0.404
63	0.090	0.090	0.090	0.170	0.251	0.323
64	0.090	0.090	0.090	0.170	0.251	0.323
65	1.000	1.000	1.000	1.000	1.000	1.000

- These rates also apply to Local Prosecutors, Local Sheriff, School Police, and Other Safety.

**Public Agency Fire 3%@50**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.034	0.034	0.034	0.048	0.068	0.080
51	0.046	0.046	0.046	0.065	0.092	0.109
52	0.069	0.069	0.069	0.097	0.138	0.163
53	0.084	0.084	0.084	0.117	0.166	0.197
54	0.103	0.103	0.103	0.143	0.204	0.241
55	0.127	0.127	0.127	0.177	0.252	0.298
56	0.121	0.121	0.121	0.169	0.241	0.285
57	0.101	0.101	0.101	0.141	0.201	0.238
58	0.118	0.118	0.118	0.165	0.235	0.279
59	0.100	0.100	0.100	0.140	0.199	0.236
60	0.150	0.150	0.150	0.210	0.299	0.354
61	0.100	0.100	0.100	0.140	0.199	0.236
62	0.125	0.125	0.125	0.175	0.249	0.295
63	0.100	0.100	0.100	0.140	0.199	0.236
64	0.100	0.100	0.100	0.140	0.199	0.236
65	1.000	1.000	1.000	1.000	1.000	1.000

**Schools 2%@ 55**

Age	Duration of Service					
	5 Years	10 Years	15 Years	20 Years	25 Years	30 Years
50	0.005	0.009	0.013	0.015	0.016	0.018
51	0.005	0.010	0.014	0.017	0.019	0.021
52	0.006	0.012	0.017	0.020	0.022	0.025
53	0.007	0.014	0.019	0.023	0.026	0.029
54	0.012	0.024	0.033	0.039	0.044	0.049
55	0.024	0.048	0.067	0.079	0.088	0.099
56	0.020	0.039	0.055	0.065	0.072	0.081
57	0.021	0.042	0.059	0.070	0.078	0.087
58	0.025	0.050	0.070	0.083	0.092	0.103
59	0.029	0.057	0.080	0.095	0.105	0.118
60	0.037	0.073	0.102	0.121	0.134	0.150
61	0.046	0.090	0.126	0.149	0.166	0.186
62	0.076	0.151	0.212	0.250	0.278	0.311
63	0.069	0.136	0.191	0.225	0.251	0.281
64	0.067	0.133	0.185	0.219	0.244	0.273
65	0.091	0.180	0.251	0.297	0.331	0.370
66	0.072	0.143	0.200	0.237	0.264	0.295
67	0.067	0.132	0.185	0.218	0.243	0.272
68	0.060	0.118	0.165	0.195	0.217	0.243
69	0.067	0.133	0.187	0.220	0.246	0.275
70	0.066	0.131	0.183	0.216	0.241	0.270



## APPENDIX B

- DESCRIPTION OF PRINCIPAL PLAN PROVISIONS



## DESCRIPTION OF PRINCIPAL PLAN PROVISIONS

The following is a description of the principal plan provisions used in calculating costs and liabilities. We have indicated whether a plan provision is standard or optional. Standard benefits are applicable to all members while optional benefits vary among employers. Optional benefits that apply to a single period of time, such as Golden Handshakes, have not been included. Many of the statements in this summary are general in nature, and are intended to provide an easily understood summary of the complex Public Employees' Retirement Law. The law itself governs in all situations.

### Service Retirement

#### Eligibility

A CalPERS member becomes eligible for Service Retirement upon attainment of age 50 with at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). For employees hired into a plan with the 1.5% at 65 formula, eligibility for service retirement is age 55 with at least 5 years of service.

#### Benefit

The Service Retirement benefit is a monthly allowance equal to the product of the *benefit factor*, *years of service*, and *final compensation*.

- The *benefit factor* depends on the benefit formula specified in your agency's contract. The table below shows the factors for each of the available formulas. Factors vary by the member's age at retirement. Listed are the factors for retirement at whole year ages:

#### Miscellaneous Plan Formulas

Retirement Age	1.5% at 65	2% at 60	2% at 55	2.5% at 55	2.7% at 55	3% at 60
50	0.5000%	1.092%	1.426%	2.0%	2.0%	2.0%
51	0.5667%	1.156%	1.522%	2.1%	2.14%	2.1%
52	0.6334%	1.224%	1.628%	2.2%	2.28%	2.2%
53	0.7000%	1.296%	1.742%	2.3%	2.42%	2.3%
54	0.7667%	1.376%	1.866%	2.4%	2.56%	2.4%
55	0.8334%	1.460%	2.0%	2.5%	2.7%	2.5%
56	0.9000%	1.552%	2.052%	2.5%	2.7%	2.6%
57	0.9667%	1.650%	2.104%	2.5%	2.7%	2.7%
58	1.0334%	1.758%	2.156%	2.5%	2.7%	2.8%
59	1.1000%	1.874%	2.210%	2.5%	2.7%	2.9%
60	1.1667%	2.0%	2.262%	2.5%	2.7%	3.0%
61	1.2334%	2.134%	2.314%	2.5%	2.7%	3.0%
62	1.3000%	2.272%	2.366%	2.5%	2.7%	3.0%
63	1.3667%	2.272%	2.366%	2.5%	2.7%	3.0%
64	1.4334%	2.272%	2.366%	2.5%	2.7%	3.0%
65 & Up	1.5000%	2.418%	2.418%	2.5%	2.7%	3.0%

**Safety Plan Formulas**

Retirement Age	½ at 55 *	2% at 55	2% at 50	3% at 55	3% at 50
50	1.783%	1.426%	2.0%	2.40%	3.0%
51	1.903%	1.522%	2.14%	2.52%	3.0%
52	2.035%	1.628%	2.28%	2.64%	3.0%
53	2.178%	1.742%	2.42%	2.76%	3.0%
54	2.333%	1.866%	2.56%	2.88%	3.0%
55 & Up	2.5%	2.0%	2.7%	3.0%	3.0%

\* For this formula, the benefit factor also varies by entry age. The factors shown are for members with an entry age of 35 or greater. If entry age is less than 35, then the age 55 benefit factor is 50% divided by the difference between age 55 and entry age. The benefit factor for ages prior to age 55 is the same proportion of the age 55 benefit factor as in the above table.

- The *years of service* is the amount credited by CalPERS to a member while he or she is employed in this group (or for other periods that are recognized under the employer's contract with CalPERS). For a member who has earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance. An agency may contract for an optional benefit where any unused sick leave accumulated at the time of retirement will be converted to credited service at a rate of 0.004 years of service for each day of sick leave.
- The *final compensation* is the monthly average of the member's highest 36 or 12 consecutive months' full-time equivalent monthly pay (no matter which CalPERS employer paid this compensation). The standard benefit is 36 months. Employers have the option of providing a final compensation equal to the highest 12 consecutive months. Final compensation must be defined by the highest 36 consecutive months' pay under the 1.5% at 65 formula.
- Employees must be covered by Social Security with the 1.5% at 65 formula. Social Security is optional for all other benefit formulas. For employees covered by Social Security, the Modified formula is the standard benefit. Under this type of formula, the final compensation is offset by \$133.33 (or by one third if the final compensation is less than \$400). Employers may contract for the Full benefit with Social Security that will eliminate the offset applicable to the final compensation. For employees not covered by Social Security, the Full benefit is paid with no offsets. Auxiliary organizations of the CSUC system may elect reduced contribution rates, in which case the offset is \$317 if members are not covered by Social Security or \$513 if members are covered by Social Security.
- The Miscellaneous Service Retirement benefit is not capped. The Safety Service Retirement benefit is capped at 90% of final compensation.

## Vested Deferred Retirement

### Eligibility for Deferred Status

A CalPERS member becomes eligible for a deferred vested retirement benefit when he or she leaves employment, keeps his or her contribution account balance on deposit with CalPERS, **and** has earned at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements).

### Eligibility to Start Receiving Benefits

The CalPERS member becomes eligible to receive the deferred retirement benefit upon satisfying the eligibility requirements for Deferred Status and upon attainment of age 50 (55 for employees hired into a 1.5% @ 65 plan).



### **Benefit**

The vested deferred retirement benefit is the same as the Service Retirement benefit, where the benefit factor is based on the member's age at allowance commencement. For members who have earned service with multiple CalPERS employers, the benefit from each employer is calculated separately according to each employer's contract, and then added together for the total allowance.

## **Non-Industrial (Non-Job Related) Disability Retirement**

### **Eligibility**

A CalPERS member is eligible for Non-Industrial Disability Retirement if he or she becomes *disabled* and has at least 5 years of credited service (total service across all CalPERS employers, and with certain other Retirement Systems with which CalPERS has reciprocity agreements). There is no special age requirement. *Disabled* means the member is unable to perform his or her job because of an illness or injury which is expected to be permanent or to last indefinitely. The illness or injury does not have to be job related. A CalPERS member must be actively employed by any CalPERS employer at the time of disability in order to be eligible for this benefit.

### **Standard Benefit**

The standard Non-Industrial Disability Retirement benefit is a monthly allowance equal to 1.8% of final compensation, multiplied by *service*, which is determined as follows:

- *service* is CalPERS credited service, for members with less than 10 years of service or greater than 18.518 years of service; or
- *service* is CalPERS credited service plus the additional number of years that the member would have worked until age 60, for members with at least 10 years but not more than 18.518 years of service. The maximum benefit in this case is 33 1/3% of Final Compensation.

### **Improved Benefit**

Employers have the option of providing the improved Non-Industrial Disability Retirement benefit. This benefit provides a monthly allowance equal to 30% of final compensation for the first 5 years of service, plus 1% for each additional year of service to a maximum of 50% of final compensation.

Members who are eligible for a larger service retirement benefit may choose to receive that benefit in lieu of a disability benefit. Members eligible to retire, and who have attained the normal retirement age determined by their service retirement benefit formula, will receive the same dollar amount for disability retirement as that payable for service retirement. For members who have earned service with multiple CalPERS employers, the benefit attributed to each employer is the total disability allowance multiplied by the ratio of service with a particular employer to the total CalPERS service.

## **Industrial (Job Related) Disability Retirement**

All safety members have this benefit. For miscellaneous members, employers have the option of providing this benefit. An employer may choose to provide the Increased benefit option or the Improved benefit option.

### **Eligibility**

An employee is eligible for Industrial Disability Retirement if he or she becomes disabled while working, where disabled means the member is unable to perform the duties of the job because of a work-related illness or injury which is expected to be permanent or to last indefinitely. A CalPERS member who has left active employment within this group is not eligible for this benefit, except to the extent described below.

### **Standard Benefit**

The standard Industrial Disability Retirement benefit is a monthly allowance equal to 50% of final compensation.

### **Increased Benefit (75% of Final Compensation)**

The increased Industrial Disability Retirement benefit is a monthly allowance equal to 75% of final compensation for total disability.

### **Improved Benefit (50% to 90% of Final Compensation)**

The improved Industrial Disability Retirement benefit is a monthly allowance equal to the Workman's Compensation Appeals Board permanent disability rate percentage (if 50% or greater, with a maximum of 90%) times the final compensation.

For a CalPERS member not actively employed in this group who became disabled while employed by some other CalPERS employer, the benefit is a return of accumulated member contributions with respect to employment in this group. With the standard or increased benefit, a member may also choose to receive the annuitization of the accumulated member contributions.

If a member is eligible for Service Retirement and if the Service Retirement benefit is more than the Industrial Disability Retirement benefit, the member may choose to receive the larger benefit.

## Post-Retirement Death Benefit

### **Standard Lump Sum Payment**

Upon the death of a retiree, a one-time lump sum payment of \$500 will be made to the retiree's designated survivor(s), or to the retiree's estate.

### **Improved Lump Sum Payment**

Employers have the option of providing an improved lump sum death benefit of \$600, \$2,000, \$3,000, \$4,000 or \$5,000.

## Form of Payment for Retirement Allowance

### **Standard Form of Payment**

Generally, the retirement allowance is paid to the retiree in the form of an annuity for as long as he or she is alive. The retiree may choose to provide for a portion of his or her allowance to be paid to any designated beneficiary after the retiree's death. CalPERS provides for a variety of such benefit options, which the retiree pays for by taking a reduction in his or her retirement allowance. Such reduction takes into account the amount to be provided to the beneficiary and the probable duration of payments (based on the ages of the member and beneficiary) made subsequent to the member's death.

### **Improved Form of Payment (Post Retirement Survivor Allowance)**

Employers have the option to contract for the post retirement survivor allowance.

For retirement allowances with respect to service subject to the modified formula, 25% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. For retirement allowances with respect to service subject to the full or supplemental formula, 50% of the retirement allowance will automatically be continued to certain statutory beneficiaries upon the death of the retiree, without a reduction in the retiree's allowance. This additional benefit is often referred to as post retirement survivor allowance (PRSA) or simply as survivor continuance.

In other words, 25% or 50% of the allowance, the continuance portion, is paid to the retiree for as long as he or she is alive, and that same amount is continued to the retiree's spouse (or if no eligible spouse, to unmarried children until they attain age 18; or, if no eligible children, to a qualifying dependent parent) for the rest of his or her lifetime. This benefit will not be discontinued in the event the spouse remarries.

The remaining 75% or 50% of the retirement allowance, which may be referred to as the option portion of the benefit, is paid to the retiree as an annuity for as long as he or she is alive. Or, the retiree may choose to provide for some of this option portion to be paid to any designated beneficiary after the retiree's death. Benefit options applicable to the option portion are the same as those offered with the standard form. The reduction is calculated in the same manner but is applied only to the option portion.

### Pre-Retirement Death Benefits

#### Basic Death Benefit

This is a standard benefit.

##### **Eligibility**

An employee's beneficiary (or estate) may receive the Basic Death benefit if the member dies while actively employed. A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this Basic Death benefit.

##### **Benefit**

The Basic Death Benefit is a lump sum in the amount of the member's accumulated contributions, where interest is currently credited at 7.75% per year, plus a lump sum in the amount of one month's salary for each completed year of current service, up to a maximum of six months' salary. For purposes of this benefit, one month's salary is defined as the member's average monthly full-time rate of compensation during the 12 months preceding death.

#### 1957 Survivor Benefit

This is a standard benefit.

##### **Eligibility**

An employee's *eligible survivor(s)* may receive the 1957 Survivor benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member must be actively employed with the CalPERS employer providing this benefit to be eligible for this benefit. An eligible survivor means the surviving spouse to whom the member was married at least one year before death or, if there is no eligible spouse, to the member's unmarried children under age 18. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this 1957 Survivor benefit.

##### **Benefit**

The 1957 Survivor benefit is a monthly allowance equal to one-half of the unmodified Service Retirement benefit that the member would have been entitled to receive if the member had retired on the date of his or her death. If the benefit is payable to the spouse, the benefit is discontinued upon the death of the spouse. If the benefit is payable to a dependent child, the benefit will be discontinued upon death or attainment of age 18, unless the child is disabled. The total amount paid will be at least equal to the Basic Death benefit.

#### Optional Settlement 2W Death Benefit

This is an optional benefit.

##### **Eligibility**

An employee's *eligible survivor* may receive the Optional Settlement 2W Death benefit if the member dies while actively employed, has attained at least age 50, and has at least 5 years of credited service (total service across all

CalPERS employers and with certain other Retirement Systems with which CalPERS has reciprocity agreements). A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married at least one year before death. A member's survivor who is eligible for any other pre-retirement death benefit may choose to receive that death benefit instead of this Optional Settlement 2W Death benefit.

### Benefit

The Optional Settlement 2W Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. The total amount paid will be at least equal to the Basic Death Benefit.

## Special Death Benefit

This is a standard benefit for safety members. An employer may elect to provide this benefit for miscellaneous members.

### Eligibility

An employee's *eligible survivor(s)* may receive the Special Death benefit if the member dies while actively employed and the death is job-related. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 22. An eligible survivor who chooses to receive this benefit will not receive any other death benefit.

### Benefit

The Special Death benefit is a monthly allowance equal to 50% of final compensation, and will be increased whenever the compensation paid to active employees is increased but ceasing to increase when the member would have attained age 50. The allowance is payable to the surviving spouse until death at which time the allowance is continued to any unmarried children under age 22. There is a guarantee that the total amount paid will at least equal the Basic Death Benefit.

If the member's death is the result of an accident or injury caused by external violence or physical force incurred in the performance of the member's duty, and there are *eligible* surviving children (*eligible* means unmarried children under age 22) in addition to an eligible spouse, then an **additional monthly allowance** is paid equal to the following:

- if 1 eligible child: 12.5% of final compensation
- if 2 eligible children: 20.0% of final compensation
- if 3 or more eligible children: 25.0% of final compensation

## Alternate Death Benefit for Local Fire Members

This is an optional benefit available only to local fire members.

### Eligibility

An employee's *eligible survivor(s)* may receive the Alternate Death benefit in lieu of the Basic Death Benefit or the 1957 Survivor Benefit if the member dies while actively employed and has at least 20 years of total CalPERS service. A CalPERS member who is no longer actively employed with **any** CalPERS employer is not eligible for this benefit. An *eligible survivor* means the surviving spouse to whom the member was married prior to the onset of the injury or illness that resulted in death. If there is no eligible spouse, an eligible survivor means the member's unmarried children under age 18.

**Benefit**

The Alternate Death benefit is a monthly allowance equal to the Service Retirement benefit that the member would have received had the member retired on the date of his or her death and elected Optional Settlement 2W. (A retiree who elects Optional Settlement 2W receives an allowance that has been reduced so that it will continue to be paid after his or her death to a surviving beneficiary.) If the member has not yet attained age 50, the benefit is equal to that which would be payable if the member had retired at age 50, based on service credited at the time of death. The allowance is payable as long as the surviving spouse lives, at which time it is continued to any unmarried children under age 18, if applicable. The total amount paid will be at least equal to the Basic Death Benefit.

**Cost-of-Living Adjustments (COLA)****Standard Benefit**

Beginning the second calendar year after the year of retirement, retirement and survivor allowances will be annually adjusted on a compound basis by 2%.

**Improved Benefit**

Employers have the option of providing an improved cost-of-living adjustment of 3%, 4% or 5%. An improved COLA is not available in conjunction with the 1.5% at 65 formula.

The cumulative adjustment may not be greater than the cumulative change in the Consumer Price Index since the date of retirement.

**Purchasing Power Protection Allowance (PPPA)**

Retirement and survivor allowances are protected against inflation by PPPA. PPPA benefits are cost-of-living adjustments that are intended to maintain an individual's allowance at 80% of the initial allowance at retirement adjusted for inflation since retirement. The PPPA benefit will be coordinated with other cost-of-living adjustments provided under the plan.

**Employee Contributions**

Each employee contributes toward his or her retirement based upon the retirement formula. The standard employee contribution is as described below.

The percent contributed below the monthly compensation breakpoint is 0%.

The monthly compensation breakpoint is \$0 for full and supplemental formula members and \$133.33 for employees covered by the modified formula.

The percent contributed above the monthly compensation breakpoint depends upon the benefit formula, as shown in the table below.

<b><u>Benefit Formula</u></b>	<b><u>Percent Contributed above the Breakpoint</u></b>
Miscellaneous, 1.5% at 65	2%
Miscellaneous, 2% at 60	7%
Miscellaneous, 2% at 55	7%
Miscellaneous, 2.5% at 55	8%
Miscellaneous, 2.7% at 55	8%
Miscellaneous, 3% at 60	8%
Safety, 1/2 at 55	Varies by entry age
Safety, 2% at 55	7%
Safety, 2% at 50	9%
Safety, 3% at 55	9%
Safety, 3% at 50	9%

The employer may choose to “pick-up” these contributions for the employees (Employer Paid Member Contributions or EPMC). An employer may also include Employee Cost Sharing in the contract, where employees contribute an additional percentage of compensation based on any optional benefit for which a contract amendment was made on or after January 1, 1979.

- Auxiliary organizations of the CSUC system may elect reduced contribution rates, in which case the offset is \$317 and the contribution rate is 6% if members are not covered by Social Security. If members are covered by Social Security the offset is \$513 and the contribution rate is 5%.

### Refund of Employee Contributions

If the member's service with the employer ends, and if the member does not satisfy the eligibility conditions for any of the retirement benefits above, the member may elect to receive a refund of his or her employee contributions, which are credited annually with 6% interest.

### 1959 Survivor Benefit

This is a pre-retirement death benefit available only to members not covered by Social Security. Any agency joining CalPERS subsequent to 1993 was required to provide this benefit if the members were not covered by Social Security. The benefit is optional for agencies joining CalPERS prior to 1994. Levels 1, 2 and 3 are now closed. Any new agency or any agency wishing to add this benefit or increase the current level must choose the 4<sup>th</sup> or Indexed Level.

This benefit is not included in the results presented in this valuation. More information on this benefit is available on the CalPERS website at [www.calpers.ca.gov](http://www.calpers.ca.gov).

## APPENDIX C

- CLASSIFICATION OF OPTIONAL BENEFITS
- EXAMPLE OF INDIVIDUAL AGENCY'S RATE CALCULATION
- DISTRIBUTION OF CLASS 1 BENEFITS





## Classification of Optional Benefits

Below is the list of the available optional benefit provisions and their initial classification upon establishment of risk pools. When new benefits become available as a result of legislation, the Chief actuary will determine their classification in accordance with the criteria established in the board policy.

### Class 1

Class 1 benefits have been identified to be the more expensive ancillary benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 1 benefit will be responsible for the past service liability associated with such benefit and will be required to pay a surcharge established by the actuary to cover the ongoing cost (normal cost) of the Class 1 benefit.

The table below shows the list of Class 1 benefits and their applicable surcharge for the Inactive Agency Risk Pool. Last year's surcharges are shown for comparison.

	June 30, 2009	June 30, 2010
• One Year Final Compensation	N/A	N/A
• EPMC 7%	N/A	N/A
• EPMC 8%	N/A	N/A
• EPMC 9%	N/A	N/A
• 25% PRSA	N/A	N/A
• 50% PRSA	N/A	N/A
• 3% Annual COLA	N/A	N/A
• 4% Annual COLA	N/A	N/A
• 5% Annual COLA	N/A	N/A
• IDR For Local Miscellaneous Members	N/A	N/A
• Increased IDR Allowance to 75% of Compensation	N/A	N/A
• Improved Industrial Disability Allowance for Local Safety Members	N/A	N/A
• 1% Employee Cost Sharing	(1.000%)	(1.000%)
• 2% Employee Cost Sharing	(2.000%)	(2.000%)
• .75% Employee Cost Sharing	(0.750%)	(0.750%)
• 7% Employee Contribution Reduction	7.000%	7.000%
• 3.50% Employee Contribution Reduction	3.500%	3.500%
• Employee Contribution Rate for CSUC Auxiliary Organizations Reduced to State Member Level - Covered by Social Security	N/A	N/A
• Employee Contribution Rate for CSUC Auxiliary Organizations Reduced to State Member Level - Not Covered by Social Security	N/A	N/A
• 1.5% @ 65 Miscellaneous	N/A	(1.097%)
• 2.5% @ 55 Safety	N/A	N/A
• 1/2 @ 55 Safety	N/A	N/A

For employers contracting for more than one Class 1 benefit, the surcharges listed in this table will be added together.

### Class 2

Class 2 benefits have been identified to be the ancillary benefits providing one-time increases in benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 2 benefit will be responsible for the past service liability associated with such benefit.

The following benefits shall be classified as Class 2:

- One-time 1% to 6% Ad Hoc COLA Increases for members who retired or died prior to January 1, 1998 (Section 21328)

## APPENDIX C

- "Golden Handshakes" – Section 20903 Two Years Additional Service Credit
- Credit for Prior Service Paid for by the Employer
- Military Service Credit (Section 20996)
- Credit for Local Retirement System Service for Employees of Agencies Contracted on a Prospective basis (Section 20530.1)
- Prior Service Credit for Employees of an Assumed Agency Function (Section 20936)
- Limit Prior Service to Members Employed on Contract Date (Section 20938)
- Public Service Credit for Limited Prior Service (Section 21031)
- Public Service Credit for Employees of an Assumed Agency or Function (Section 21025)

### Class 3

Class 3 benefits have been identified to be the less expensive ancillary benefits. Class 3 benefits may vary by rate plan within each risk pool. However, the employer contribution rate will not vary within the risk pool due to the Class 3 benefits.

The following benefits shall be classified as Class 3:

- Full formula plus social security
- Post Retirement Lump Sum Death Benefit
- \$600 lump sum retired death benefit (Section 21622)
- \$2,000 lump sum retired death benefit (Section 21623.5)
- \$3,000 lump sum retired death benefit (Section 21623.5)
- \$4,000 lump sum retired death benefit (Section 21623.5)
- \$5,000 lump sum retired death benefit (Section 21623.5)
- Improved non-industrial disability allowance (Section 21427)
- Special death benefit for local miscellaneous members (Section 21540.5)
- Service Credit Purchased by Member
- Partial Service Retirement (Section 21118)
- Optional Membership for Part Time Employees (Section 20325)
- Extension of Reciprocity Rights for Elective Officers (Section 20356)
- Removal of Contract Exclusions Prospectively Only (Section 20503)
- Alternate Death Benefit for Local Fire Members credited with 20 or more years of service (Section 21547.7)

## Example Of Individual Agency's Rate Calculation

An individual employer rate is comprised of several components. These include the pool's net employer normal cost, payment on the pool's unfunded liability, additional surcharge payments for contracted Class 1 benefits, the normal cost phase-out and an agency's payment for their own side fund. An example of the total rate for an employer might look something like this:

Net Pool's Employer Normal Cost	0.000%
Rate Plan Surcharges	<u>N/A</u>
Total Employer Normal Cost	0.000%
Plus: Pool's Payment on the Amortization Bases	0.000%
Side Fund Amortization Payment	<u>2.600%</u>
Total Employer Rate for fiscal year 2012-2013	2.600%

Details regarding your individual agency's normal cost phase out, side fund and surcharges can be found in Section 1.

## Distribution of Class 1 Benefits

	<b>% of members in the pool with contracted benefit</b>
<b><i>Final Compensation</i></b>	
One Year Final Compensation	N/A
Three Years Final Compensation	N/A
<b><i>Post Retirement Survivor Continuance (PRSA)</i></b>	
No PRSA	N/A
With PRSA	N/A
<b><i>Cost-of-Living Adjustments (COLA)</i></b>	
2% COLA	N/A
3% COLA	N/A
4% COLA	N/A
5% COLA	N/A
<b><i>Industrial Disability Benefit</i></b>	
None	N/A
Standard Industrial Disability Benefit (50% of Final Compensation)	N/A
Improved Industrial Disability Benefit (75% of Final Compensation)	N/A
Improved Industrial Disability Benefit (50% - 90% of Final Compensation)	N/A



## APPENDIX D

- LIST OF PARTICIPATING EMPLOYERS



## Employer Name

AMERICAN CANYON FIRE DISTRICT  
 ARROWBEAR PARK COUNTY WATER DISTRICT  
 BALDY MESA WATER DISTRICT  
 BROADMOOR POLICE PROTECTION DISTRICT  
 CALIFORNIA FIREFIGHTERS JOINT APPRENTICESHIP COMMITTEE  
 CALIFORNIA MARITIME ACADEMY FOUNDATION, INC.  
 CAMERON PARK COMMUNITY SERVICES DISTRICT  
 CARMEL HIGHLANDS FIRE PROTECTION DISTRICT OF MONTEREY COUNTY  
 CENTRAL COAST COMPUTING AUTHORITY  
 CITY OF ADELANTO  
 CITY OF BIGGS  
 CITY OF BLUE LAKE  
 CITY OF CARPINTERIA  
 CITY OF COMPTON  
 CITY OF DUNSMUIR  
 CITY OF FORT BRAGG  
 CITY OF HAWAIIAN GARDENS  
 CITY OF HUGHSON  
 CITY OF LAKE ELSINORE  
 CITY OF LYNWOOD  
 CITY OF MAYWOOD  
 CITY OF NEEDLES  
 CITY OF OJAI  
 CITY OF PARAMOUNT  
 CITY OF PERRIS  
 CITY OF RIVERBANK  
 CITY OF SAN CLEMENTE  
 CITY OF SAN JACINTO  
 CITY OF SANTA MONICA  
 CITY OF SEAL BEACH  
 CITY OF SOLVANG  
 CITY OF SONOMA  
 CITY OF STANTON  
 CITY OF TAFT  
 CITY OF TEHACHAPI  
 CITY OF VICTORVILLE  
 CITY OF WASCO  
 CITY OF WATERFORD  
 COACHELLA CITY  
 COALINGA-HURON MOSQUITO ABATEMENT DISTRICT  
 COASTSIDE FIRE PROTECTION DISTRICT  
 COLLEGE TOWN  
 CORDELIA FIRE PROTECTION DISTRICT OF SOLANO COUNTY  
 COUNTY OF SAN JOAQUIN  
 DALY CITY REDEVELOPMENT AGENCY  
 DOUGHERTY REGIONAL FIRE AUTHORITY  
 DOWNEY CEMETERY DISTRICT  
 FRUITRIDGE FIRE PROTECTION DISTRICT  
 HAMILTON BRANCH FIRE PROTECTION DISTRICT  
 HESPERIA FIRE PROTECTION DISTRICT  
 HOPLAND PUBLIC UTILITY DISTRICT  
 IDYLLWILD FIRE PROTECTION DISTRICT  
 INDEPENDENT CITIES ASSOCIATION, INCORPORATED  
 JANESVILLE FIRE PROTECTION DISTRICT  
 LA BRANZA WATER DISTRICT  
 LAMONT PUBLIC UTILITY DISTRICT  
 LINDEN-PETERS RURAL COUNTY FIRE PROTECTION DISTRICT

## APPENDIX D

LOS ANGELES COMMUNITY COLLEGE DISTRICT  
LOS ANGELES REGIONALIZED INSURANCE SERVICES AUTHORITY  
LOS OSOS COMMUNITY SERVICES DISTRICT  
MARIN HEALTHCARE DISTRICT  
MC CLOUD COMMUNITY SERVICES DISTRICT  
MID CITY DEVELOPMENT CORPORATION  
MOUNTAIN-VALLEY LIBRARY SYSTEM  
NATOMAS FIRE PROTECTION DISTRICT  
NILAND SANITARY DISTRICT  
NORTH STATE COOPERATIVE LIBRARY SYSTEM  
OLCESE WATER DISTRICT  
ORANGE COVE FIRE PROTECTION DISTRICT OF FRESNO AND TULARE COUNTIES  
PAJARO VALLEY FIRE PROTECTION AGENCY  
PALO VERDE CEMETERY DISTRICT  
PASADENA UNIFIED SCH DIST  
PLUMAS LOCAL AGENCY FORMATION COMMISSION  
RAMONA MUNICIPAL WATER DISTRICT  
RANCHO SANTIAGO COMMUNITY COLLEGE ASSOCIATED STUDENTS  
RECLAMATION DISTRICT # 1660  
RINCON DEL DIABLO MUNICIPAL WATER DISTRICT  
RIVERSIDE COUNTY AIR POLLUTION CONTROL DISTRICT  
RUBIDOUX COMMUNITY SERVICES DISTRICT  
SALIDA FIRE PROTECTION DISTRICT  
SALTON COMMUNITY SERVICES DISTRICT  
SAMOA PENINSULA FIRE PROTECTION DISTRICT  
SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY  
SAN FRANCISCO CITY AND COUNTY HOUSING AUTHORITY  
SAN MATEO LOCAL AGENCY FORMATION COMMISSION  
SAN SIMEON COMMUNITY SERVICES DISTRICT  
SANTA CRUZ COUNTY LAW LIBRARY  
SOLEDAD COMMUNITY HEALTH CARE DISTRICT  
SONOMA STATE ENTERPRISES, INC.  
SONOMA STUDENT UNION CORPORATION  
THREE ARCH BAY COMMUNITY SERVICES DISTRICT  
TORRANCE CITY REDEVELOPMENT AGENCY  
TRACY RURAL COUNTY FIRE PROTECTION DISTRICT  
TREASURE ISLAND DEVELOPMENT AUTHORITY  
UKIAH VALLEY FIRE DISTRICT  
VICTOR VALLEY WATER DISTRICT  
WEST END COMMUNICATIONS AUTHORITY



## APPENDIX E

- GLOSSARY OF ACTUARIAL TERMS

## Glossary of Actuarial Terms

### Accrued Liability

The total dollars needed as of the valuation date to fund all benefits earned in the past for *current* members.

### Actuarial Assumptions

Assumptions made about certain events that will affect pension costs. Assumptions generally can be broken down into two categories: demographic and economic. Demographic assumptions include such things as mortality, disability and retirement rates. Economic assumptions include investment return, salary growth and inflation.

### Actuarial Methods

Procedures employed by actuaries to achieve certain goals of a pension plan. These may include things such as funding method, setting the length of time to fund the past service liability and determining the actuarial value of assets.

### Actuarial Valuation

The determination, as of a valuation date of the normal cost, actuarial accrued liability, actuarial value of assets and related actuarial present values for a pension plan. These valuations are performed annually or when an employer is contemplating a change to their plan provisions.

### Actuarial Value of Assets

The actuarial value of assets used for funding purposes is obtained through an asset smoothing technique where investment gains and losses are partially recognized in the year they are incurred, with the remainder recognized in subsequent years.

This method helps to dampen large fluctuations in the employer contribution rate.

### Amortization Bases

Separate payment schedules for different portions of the unfunded liability. The total unfunded liability (or side fund) can be segregated by "cause", creating "bases" and each such base will be separately amortized and paid for over a specific period of time. This can be likened to a home mortgage that has 24 years of remaining payments and a second on that mortgage that has 10 years left. Each base or each mortgage note has its own terms (payment period, principal, etc.)

Generally in an actuarial valuation, the separate bases consist of changes in liability (principal) due to amendments, actuarial assumption changes, or methodology changes and gains and losses. Payment periods are determined by Board policy and vary based on the cause of the change.

### Amortization Period

The number of years required to pay off an amortization base.

### Annual Required Contributions (ARC)

The employer's periodic required annual contributions to a defined benefit pension plan, calculated in accordance with the plan assumptions. The ARC is determined by multiplying the employer contribution rate by the payroll reported to CalPERS for the applicable fiscal year. However, if this contribution is fully prepaid in a lump sum, then the dollar value of the ARC is equal to the Lump Sum Prepayment.

### Class 1 Benefits

Class 1 benefits have been identified to be the more expensive ancillary benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 1 benefit will be responsible for the past service liability associated with such benefit and will be required to pay a surcharge established by the actuary to cover the ongoing cost (normal cost) of the Class 1 benefit.

**Class 2 Benefits**

Class 2 benefits have been identified to be the ancillary benefits providing one-time increases in benefits. These benefits vary by employer across the risk pool. Agencies contracting for a Class 2 benefit will be responsible for the past service liability associated with such benefit.

**Class 3 Benefits**

Class 3 benefits have been identified to be the less expensive ancillary benefits. Class 3 benefits may vary by rate plan within each risk pool. However, the employer contribution rate will not vary within the risk pool due to the Class 3 benefits.

**Entry Age**

The earliest age at which a plan member begins to accrue benefits under a defined benefit pension Plan or risk pool. In most cases, this is the same as the date of hire.

(The assumed retirement age less the entry age is the amount of time required to fund a member's total benefit. Generally, the older a member is at hire, the greater the entry age normal cost. This is mainly because there is less time to earn investment income to fund the future benefits.)

**Excess Assets**

When a plan or pool's actuarial value of assets is greater than its accrued liability, the difference is the plan or pool's excess assets. A plan with excess assets is said to be overfunded. The result is that the plan or pool can temporarily reduce future contributions.

**Entry Age Normal Cost Method**

An actuarial cost method designed to fund a member's total plan benefit over the course of his or her career. This method is designed to produce stable employer contributions in amounts that increase at the same rate as the employer's payroll (i.e. level % of payroll).

**Fresh Start**

When multiple amortization bases are collapsed into one base and amortized over a new funding period. At CalPERS, fresh starts are used to avoid inconsistencies that would otherwise occur.

**Funded Status**

A measure of how well funded a plan or risk pool is. Or equivalently, how "on track" a plan or risk pool is with respect to assets vs. accrued liabilities. We calculate a funded ratio by dividing the market value of assets by the accrued liabilities. A ratio greater than 100% means the plan or risk pool has more assets than liabilities and a ratio less than 100% means liabilities are greater than assets.

**Normal Cost**

The annual cost of service accrual for the upcoming fiscal year for active employees. The normal cost plus surcharges should be viewed as the long term contribution rate.

**Pension Actuary**

A person who is responsible for the calculations necessary to properly fund a pension plan.

**Prepayment Contribution**

A payment made by the employer to reduce or eliminate the year's required employer contribution.

**Present Value of Benefits**

The total dollars needed as of the valuation date to fund all benefits earned in the past or expected to be earned in the future for current members.

**Risk Pools**

Using the benefit of the law of large numbers, it is a collection of employers for the purpose of sharing risk.

**Rolling Amortization Period**

An amortization period that remains the same each year or does not decline.

**Side Fund**

At the time of joining a risk pool, a side fund was created to account for the difference between the funded status of the pool and the funded status of your plan. Your side fund will be amortized on an annual basis, with the actuarial investment return assumption. This assumption is currently 7.75%. A positive side fund will cause your required employer contribution rate to be reduced by the Amortization of the Side Fund shown in REQUIRED CONTRIBUTIONS. A negative side fund will cause your required employer contribution rate to be increased by the Amortization of the Side Fund. In the absence of subsequent contract amendments or funding changes, the Side Fund will disappear at the end of the amortization period.

**Superfunded**

A condition existing when the actuarial value of assets exceeds the present value of benefits. When this condition exists on a given valuation date for a given plan, employee contributions for the rate year covered by that valuation may be waived.

**Unfunded Liability**

When a plan or pool's actuarial value of assets is less than its accrued liability, the difference is the plan or pool's unfunded liability. The plan or pool will have to temporarily increase contributions.